


Article

# Earth Awareness: Mapping an Emergent Relational Field

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## Abstract

Amidst deepening ecological disruption and widespread disconnection from nature, this study explores the emerging field of Earth Awareness (EA) as a relational and experiential aspect of advancing planetary health. EA practices—rooted in Buddhist, Indigenous, mindfulness, and nature-based traditions—support direct experiences of interconnectedness with Earth, ecological awareness and consciousness, and opportunities to transform underlying patterns and systems. Through 45 reflective dialogues with teachers and practitioners across traditions, this participatory research identifies common inspirations, intentions, and challenges that shape the emerging EA field. Findings reveal that EA is characterized by contemplative practices, rituals, and ceremonies that bridge inner transformation and outer action in the world. Central intentions such as healing, interconnectedness, and justice align closely with planetary health priorities, including mental well-being, equity, and stewardship of the living world. Although the field faces challenges related to access, risk of cultural appropriation, and systemic separation, participants identified opportunities for community building, intercultural exchange, and centering Earth as teacher and co-participant. By mapping coherence in this diverse field, this study highlights EA's potential to contribute to planetary health by reconnecting people with place, fostering a more ecological consciousness, and supporting culturally grounded pathways for collective action and care for Earth.

**Keywords:** earth awareness; ecological consciousness; mindfulness practice; relational systems thinking; indigenous and nature-based traditions

## 1. Introduction

Human-driven ecological disruption is accelerating globally, revealing that degraded relationships—with self, community, and the more-than-human world—are core drivers of today's social–ecological crises [1–3]. Earth awareness (EA) offers promise for helping people deepen their sense of a relational world as a foundation for responsible and meaningful action. EA practices are a broad set of actions and philosophies aimed at fostering deeper relationships with Earth along with care and stewardship of Earth. Rooted in diverse cultural, ecological, spiritual, and philosophical traditions [4–6], EA practices emphasize ways of living in alignment with ecological integrity [7–9], ecological mindfulness and application of mindfulness practice to environmental issues [10–13], and the holistic integration of human activities and experiences so they contribute to balance within Earth's living ecosystems [14,15].

Work that supports EA aligns with the planetary health agenda, which emphasizes that human well-being is inseparable from the integrity of Earth's natural systems. EA contributes an inner and relational dimension largely missing from dominant planetary



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health frameworks by examining how ecological consciousness and embodied relationality support healthier social–ecological systems.

This inquiry explores how EA practices function across traditions, addressing a gap in understanding how relational and contemplative approaches contribute to the transformation of underlying systems and ecological responsibility. This engaged research highlights a role for awareness in systems change, Indigenous knowledge systems, education and learning, and individual and collective responses to ecological challenges that are rooted in mindfulness.

Indigenous and traditional ways of knowing and being are central in this work [16–18]. Traditional ecological knowledge refers to the cumulative body of knowledge, practices, and beliefs passed down through generations by Indigenous and local communities [19]. These knowledge systems often embody EA and respect for Earth and the processes through which life creates life, including local ecosystems and human communities, sustainable resource use, biodiversity conservation, and ecological balance [5]. Traditional ecological knowledge systems guide sustainable ways of living, emphasizing the integration of EA into contemporary ecologically aligned actions and communities [17,18]. Traditional knowledge systems based in EA also provide critical insights into adaptation to environmental change, particularly for vulnerable communities [20–22]. These works underscore the importance of preserving and promoting Indigenous knowledge systems as a cornerstone of EA.

Mindfulness practices, such as meditation with nature, are increasingly recognized for their potential to enhance EA and planetary health. For example, mindfulness cultivates a heightened sense of interconnectedness that can inspire pro-environmental behaviors and reduce ecological footprints as participants become more attuned to the environmental consequences of their choices and actions [23–25]. Mindfulness can serve as a bridge between internal reflection and external, ecologically minded action, encouraging individuals to adopt awareness-based ways of life that contribute to planetary well-being.

Environmental education also plays a crucial role in fostering EA and planetary health. Teaching and learning are continuous processes in life that closely relate to awareness. Traditional education systems risk promoting detachment from ecological realities, consciousness, and literacy [12,26–28]. Pedagogies that prioritize experiential learning, systems thinking, and community engagement have transformative potential for sustainability [27,28]. Educational initiatives for youth such as outdoor learning programs and citizen science projects for people of all ages have demonstrated success in cultivating a sense of stewardship for the environment that is based in awareness [29,30].

The institutionalization of EA through national or global policies and frameworks can further amplify the effects of awareness. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) recognizes that reorganization of technological, economic, and social systems—including inner systems such as paradigms and values—is necessary for well-being and human development on Earth. IPBES looks inward to identify “disconnection of people from nature and domination over nature and other people” as one of three underlying major causes for global biodiversity loss [31].

The United Nations’ Sustainable Development Goals (SDGs) underscore the importance of fostering sustainable lifestyles and protecting natural ecosystems [32,33], but such intergovernmental frameworks are insufficient on their own for addressing the deeper, inner factors related to EA. Top-down approaches often lack the localized specificity and cultural sensitivity necessary for meaningful engagement [34,35]. Recognition of the inner dimension of outer change making has arisen as a response to large-scale efforts that push for outer change but neglect tending to inner worlds [36,37]. The distinction between inner and outer is useful for highlighting how inner worldviews, mindsets, and hearts interrelate

with outer conditions. Progress toward sustainability requires external “solutions” and foundational internal shifts in values, awareness, and capacities such as leadership [38].

## 2. Materials and Methods

Our primary aim in this participatory research study was to define an emergent EA field by examining the lineages of people teaching and practicing EA, their intentions and stated purpose for developing the field, their sources of inspiration for teaching and practicing, places they refer to as centers of practice, and opportunities and obstacles to the development of the EA field. We asked “how do the relationships among people’s lineage, their intentions, sources of inspiration, and perceived opportunities and obstacles across traditions collectively shape and define an emergent field of EA?” By defining the field, we intended to help the field know itself and identify opportunities for further development. By exploring how these motivating forces interact—within and across lineages, traditions, and contexts—we aimed to help the EA field see itself more clearly and identify opportunities for strengthening collective development.

Because EA is an emergent field, we used relational systems—thinking and participatory inquiry to co-create understanding with practitioners. This approach allowed us to map weak ties, surface shared principles, and explore cross-tradition coherence and potential for coordination. We sought to explore potential for coordination in the field, contribute to the field knowing itself [39], and build an understanding of systems relationships that could affect the future development of an accessible, balanced, and coherent field. This study aimed to provide conditions for learning, growth, and deepening relationships throughout the EA field by engaging with teachers and practitioners in reflective dialogue about EA across traditions.

This inquiry was built from an exploration of Ecodharma practices and two Eco Advisory Groups convened by the BESS Family Foundation [40]. We conducted applied research with tools from relational network mapping, interdisciplinary social science, and Indigenous research methods. A steering committee was assembled to advise this project, including teachers, community leaders, practitioners, and funders of EA. We met in April 2024 to discuss the general framework and methodological approaches, and in December 2024 to present preliminary results. Individual steering committee members engaged via email, voice messages, and one-on-one conversations throughout data collection and analysis for iterative feedback.

We created an initial list of prospective interviewees (hereafter, participants) from members of the two Eco Advisory Groups, representing perspectives across mindfulness, meditation, and Indigenous communities. Steering committee members advised an initial set of 15 potential participants to begin with, and with each interview, we asked for the recommendations of others who would be good to consider speaking with.

We made efforts to interview participants across several dimensions of diversity, including gender, race, career stage, sector (i.e., academic vs. NGO), tradition, and geography within the continental U.S. (see Figure 1) [41]. We did not collect or have access to detailed demographic data for interviewees. Our sample resulted in 30% of interviewees presenting as BIPOC, which overrepresents white perspectives and is consistent with white overrepresentation in studies of mindfulness practice in the U.S. workforce [42,43] and the use of a free meditation app [44].



**Figure 1.** Stars indicate locations of participants who participated in dialogues for this study. The author engaged in dialogues from Vermont and Maryland in the U.S. between May–October 2024.

We conducted 45 one-on-one, semi-structured interviews on Zoom, phone, and in person. Each interview lasted about 1 h. Appendix A includes the interview questions. Interviews included open-ended questions that invited sharing and mutually co-created, reflective dialogue [45–47]. Research design was influenced by methodologies that emphasize context, mutual accountability, and co-creative processes, such as those rooted in Indigenous protocols [14,47,48], decolonial perspectives [49–51], and boundary spanning approaches [52–54].

Due to data quality and completeness, we analyzed 38 dialogues. We transcribed and coded written interview notes using Otter.ai with random spot-checks for accuracy and created a database in Excel (version 16.104). We carefully protected interview data to maintain privacy and anonymity and provided prior informed consent [55,56]. Based on initial data analysis, we identified specific themes and codes in the dialogues [57,58]. These codes were revised based on feedback from a steering committee member. We coded all dialogues and took care to maintain contextual meaning of data and visualize the field as a whole while examining particular relationships among data [47,58]. The following section on Results and Findings includes tables with definitions for all codes. We complemented the interview data by triangulating across multiple data sources, including desk research and online searches related to people, organizations, and events that participants referenced, such as retreats, programs, and presentations [59–62]. We analyzed the database in Kumu (version 2) and Excel and used Python (version 3.13) scripts to generate descriptive statistics and plots [63–66].

### 3. Results

#### 3.1. Defining Earth Awareness Practices, Rituals, and Ceremonies

We define Earth Awareness as: a relational, emergent field of interconnectedness among all beings that cultivates deeper relationships with Earth. This working definition was proposed and iteratively revised to reflect the collective views of the EA field. Participants described the following nuances, which shape the contours of the field.

EA is an emergent social field that exists within the quality, depth, and extent of relationships among living Earth [5,67]. EA can grow from the application of mindfulness to relationships with oneself, others, and Earth. In simple terms, EA means being in touch with Earth. Awareness of Earth can be cultivated through, for example: noticing one’s

breath; feeling the ground; sensing an unfolding flow of the present moment through observing nature; experiencing oneself as an embodied, living being of Earth; relating with more-than-human beings as kin; and engaging with ancestral relations.

EA operates across scales—from intimate embodied awareness to collective and planetary consciousness—enabling individuals and communities to situate themselves within nested ecological systems. This inquiry considers the importance of EA across scales: for example, the intimate can provide pathways to embodied experience of interconnectedness; the collective provides opportunities for coordinated actions; and the planetary transcends exclusive identities and embraces holistic, integrated awareness.

Participants described how EA can be foreign to mainstream Western culture. In heavily industrialized cultures, humans have become hypnotized by the human-made world that mirrors ourselves to ourselves, and conditioned to orient toward individualism and separation from Earth in many facets of our lives [14,18,36,37]. Participants expressed urgency about addressing this separation and a recognition that the current world evolved over a long timeframe.

Activities for fostering EA further define the field. The word “practice” is common in some traditions to refer to a variety of activities and principles aimed at cultivating awareness, presence, and a deeper connection with oneself and the world. This word alone is insufficient for reflecting the deeply spiritual nature of many rituals, ceremonies, prayers, and blessings that are part of EA and that cultivate ways of living in alignment with EA across traditions. Some participants distinguished between rituals that are regular (i.e., daily or weekly) and ceremonies that are less frequent, multi-day, community-based gatherings. In this inquiry, we mainly use the term practice, which includes secular activities and spiritually significant rituals and ceremonies.

The interviews revealed diverse perspectives, practices, and ways of living individually and in community that are focused on EA, mindfulness, meditation, and spirituality. Participants described many notable types of practices, presented in detail in Appendix B. These practices include Ecodharma retreats and leadership retreats that feature mindfulness in nature, mindfulness-based sustainability transformations, rites of passage, and sensory immersion in natural settings. Participants also described specific activities related to EA practices, for example:

- Gratitude for the gifts of life we receive from Earth, reflection on our roles in caring for these gifts for future generations, and mindfulness for living in harmony with the Universe. For example, the Mohawk Nation’s *Ohenten Kariwatekwen* “words that are spoken before all others” is a traditional opening of ceremonies and many meetings for greeting and acknowledging all elements of creation. The Lakota Nation’s *Mitákuye Oyás’iŋ* “all my relations” or “we are all related” acknowledges relatedness among all beings and shifts away from anthropocentric views to embrace a broader interconnected perspective. EA practices may ask permission of, acknowledge, or engage in deep reciprocal relationship with land and water spirits.
- Activities such as vision quests, wilderness ceremonies, rites of passage, and elemental grief practices explore personal transformation and underscore relationship with Earth as teacher, guide, and healer. Many EA practices such as kinship-based mindfulness outdoors invite communing with nature.
- Journaling to document sensory experiences in natural surroundings is often used as an introductory practice to draw people into deeper EA. Engaging in reflective dialogue with a partner during retreats supports the interpretation of EA experiences.
- Mindful walking, for example, the Plum Village practice of kissing the ground with one’s feet on each step to cultivate love for Earth, and mindful eating practices, such

as contemplations before eating, invite silence and mindfulness as important aspects of developing deeper EA.

- Plant-based practices, such as planting, gardening, farming, and creating pollinator-friendly landscapes are forms of mindful activities that can be intended for EA when introduced and held in particular ways, for example with singing to seeds.
- Observance and celebration of Earth-related rhythms with the cosmos, such as lunar phases, equinoxes, or patterns in the movement of stars, can create shared experiences of awe in nature. Star gazing can remind people of forces at play larger than us, and invoke mindfulness of ancestors.
- Approaches based in decolonization and repatriation can address cultural wounds, promote healing, and repair relationships with land. Land-based healing programs such as Healing Wounds of Turtle Island involve a decades-long healing ceremony among communities with shared respect for life.
- Programs like Contemplative Sustainable Futures and Mindfulness Labs aim to foster ecological consciousness among students and professionals and integrate EA into university curricula to merge outer sustainability efforts with inner transformation.
- Participants noted the term Earth Awareness is a layered metaphor with an inner and outer meaning: human awareness of Earth, and Earth's awareness or Earth's consciousness of which humans are an expression (i.e., as we are aware of the world, so too is the world aware of us). For the purpose of this inquiry, we mostly focused on EA practices aimed at helping humans be aware of Earth and experience themselves as part of Earth.

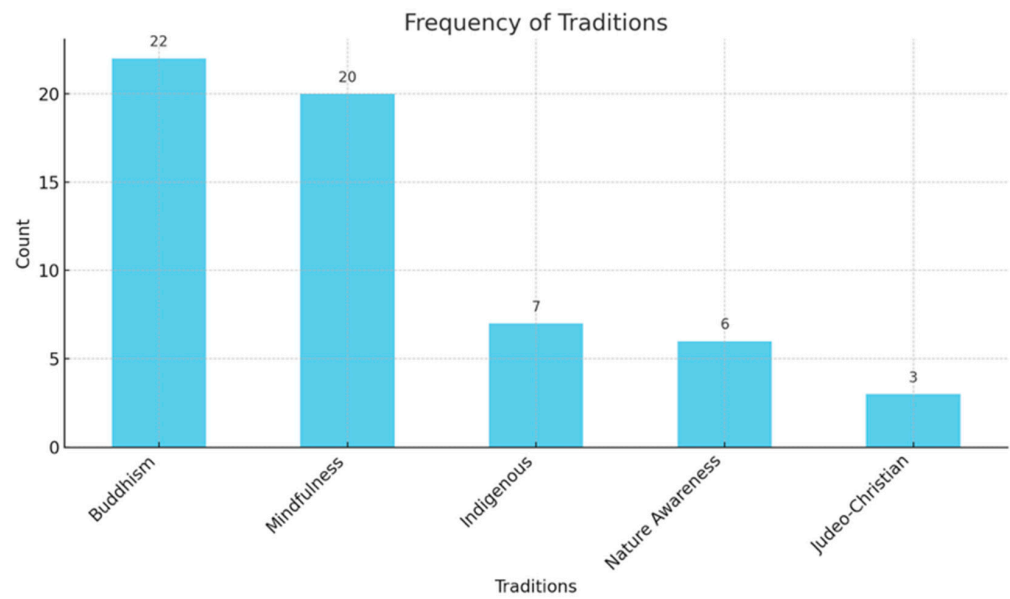
### 3.2. Traditions That EA Draws from

This inquiry focused mainly on Buddhist, Indigenous, and mindfulness traditions. Participants mentioned two additional primary traditions—Judeo-Christian and Nature Awareness—and referred to traditions based on land-based healing practices, BIPOC-centered land-based communities, and land back and land repatriation efforts (see Table 1 and frequency of traditions in Figure 2).

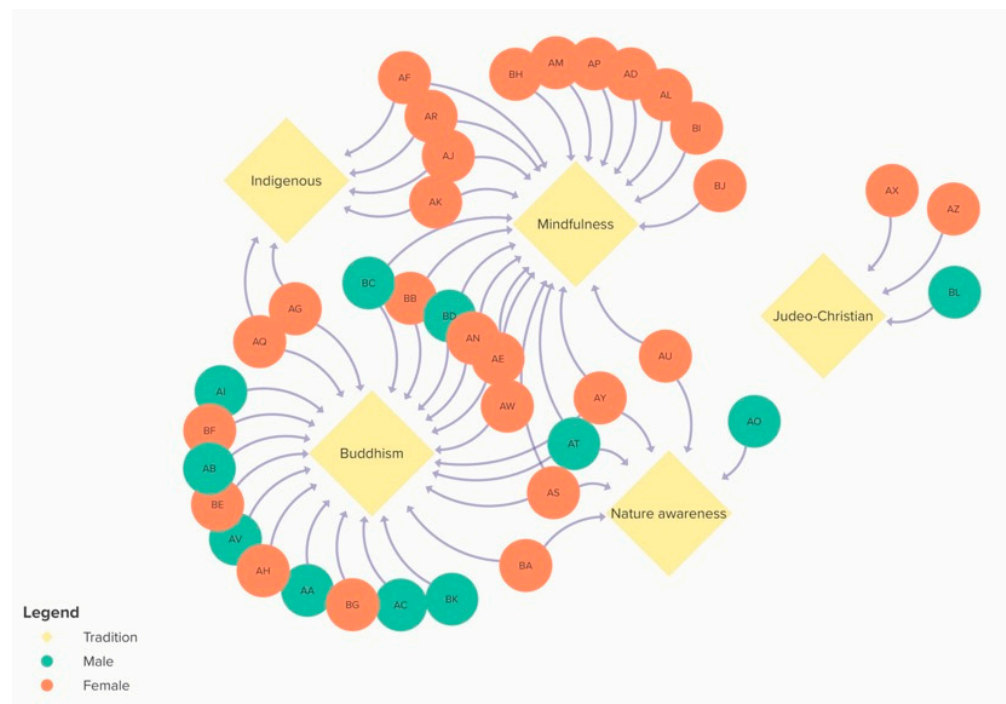
**Table 1.** Traditions in order of frequency of mention in the dialogues.

Tradition	Lineage for Teaching and Practicing EA
Buddhism	Includes traditions rooted in Theravada (such as Vipassana, Insight, and Thai Forest), Vajrayana (such as Tibetan), and Mahayana (such as Zen).
Mindfulness	Mindfulness approaches to consciously being in the present moment experience that is not associated with a particular religion or spiritual tradition, such as Mindfulness Based Stress Reduction (MBSR).
Indigenous Nature Awareness	Traditions related to First Nations and Tribal Nations of Turtle Island (North America). Familiarity with nature through natural history observation, species identification, and naturalist skills such as reading the landscape and listening to bird songs.
Judeo-Christian	Religious traditions that center responsible relationship with Earth, such as integral ecology and creation care.

Visualizing relationships enables us to see interconnections among traditions within the EA field. These results reflect how participants in this study expressed interconnections among traditions. They do not reflect actual interconnections among traditions. For example, Figure 3 shows how Judeo-Christian traditions arose as an adjacent but distinct part of the EA field. These traditions have a rich, long-standing, and growing interest in EA practices, rituals, and ceremonies. Relationships among a growing EA field and Judeo-Christian traditions would be a valuable area of future study [68].



**Figure 2.** Number of mentions of traditions in the dialogues. Each tradition mentioned is counted separately, even if it appeared in combination with others in a single dialogue.



**Figure 3.** Kumu map showing interconnections among traditions as represented in the dialogues. Letters are random and do not correspond to people’s initials to protect privacy. Gender of participants shows distribution across traditions and does not include non-binary gender categories.

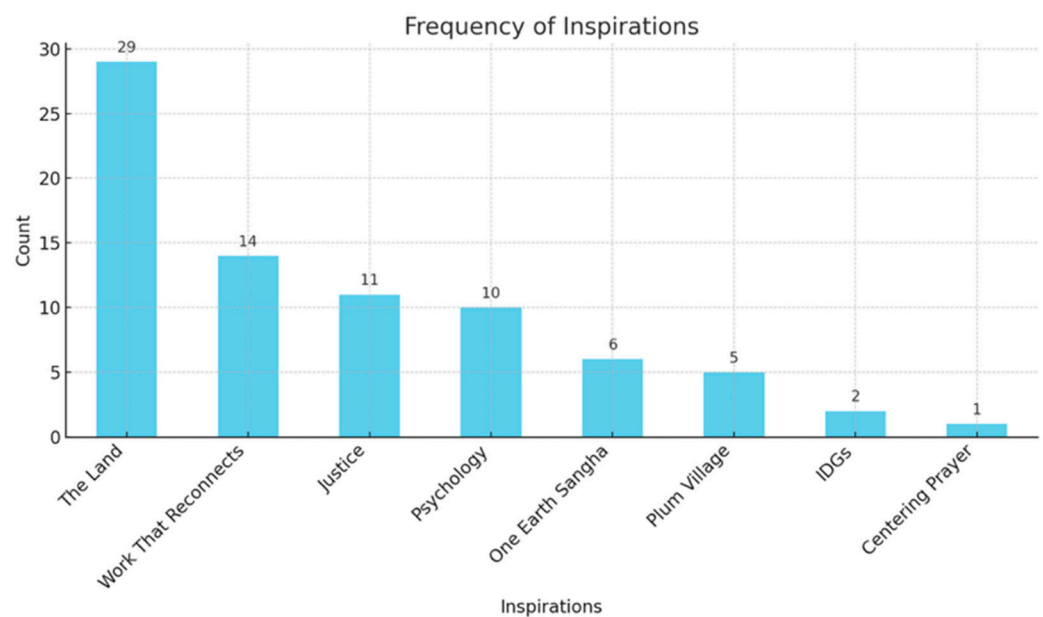
### 3.3. Sources of Inspiration for EA

Participants described several sources of inspiration for their work engaging with EA practices, rituals, and ceremonies. Table 2 shows specific sources that the participants mentioned during dialogues. Participants expressed feeling that these inspirations were significant centers of EA practice and motivating forces for themselves and others.

**Table 2.** Sources of inspiration in order of frequency of mention in the dialogues.

Inspiration	Sources of Inspiration for EA
The Land	Mother Earth and relationships with the more than human world.
Work That Reconnects	An approach to bringing people into relationship, and a community of practitioners developed by Joanna Macy, including related frameworks such as Active Hope.
Justice	The impacts of injustice experienced by groups, as well as the role of justice in inspiring mindfulness practices, connections to the land, and efforts to raise awareness that informs collective actions.
Psychology	Ecopsychology, the application of mindfulness to psychological health, and the scientific research evidence base for mindfulness practice.
One Earth Sangha	A community that provides support for action and response to ecological crises based on the insights and practices of Buddhist traditions.
Plum Village	A global community of mindfulness centers and Zen Buddhism monasteries founded by Thich Nhat Hanh.
IDGs	Inner Development Goals, which applies mindfulness and inner development to global challenges faced by humanity, such as fulfilling the Sustainable Development Goals.
Centering Prayer	A modern Christian contemplative prayer.

Figure 4 shows frequency of inspirations and Figure 5 presents a visualization of relationships among sources of inspiration. This visualization shows far-reaching relationality and interconnection among inspirations, with strong clustering around The Land in particular (29 mentions, or 37% of all mentions of sources of inspiration).

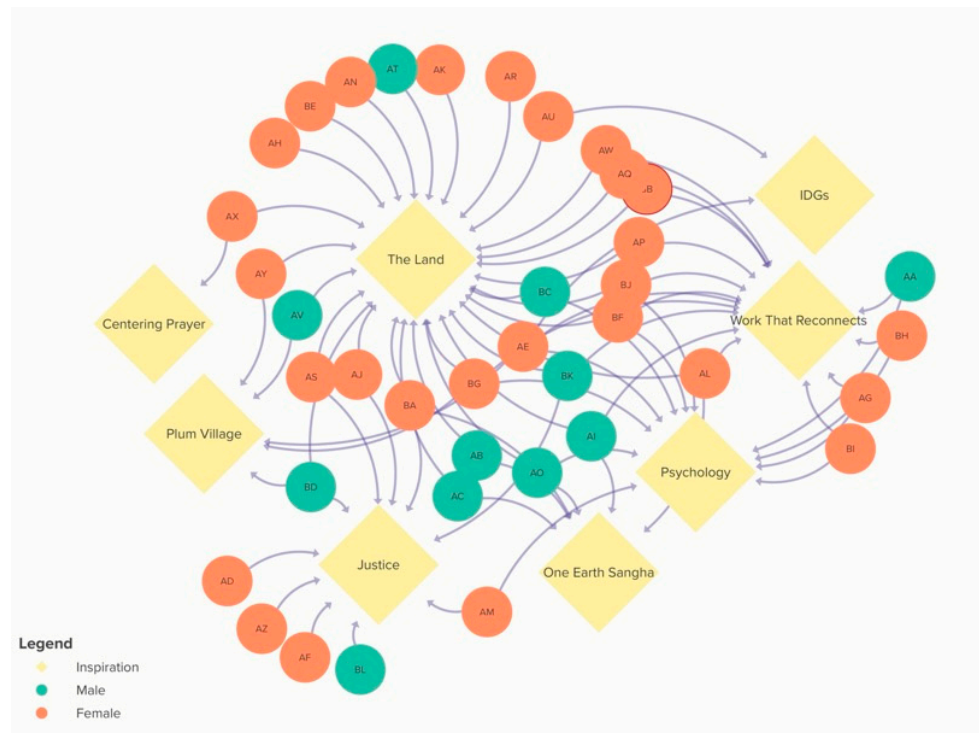


**Figure 4.** Number of mentions of inspirations in the dialogues. Each inspiration mentioned is counted separately, even if it appeared in combination with others in a single dialogue.

### 3.4. Intentions and Purpose for EA

When asked why they engaged with EA practices, participants shared specific intentions. Table 3 shows a list of intentions that were mentioned by at least four participants.

The top three intentions shown in Figure 6—Interconnectedness, Personal Benefit, and Healing—accounted for 63% of all mentions of a specific intention or purpose for EA practices (71 out of 113). There was overlap among some intentions, for example, Personal Benefit and Healing, both of which signify how EA practices can alleviate suffering. Personal Benefit refers more to ease for an individual, whereas Healing refers more to relationships among parts and collective wholeness.



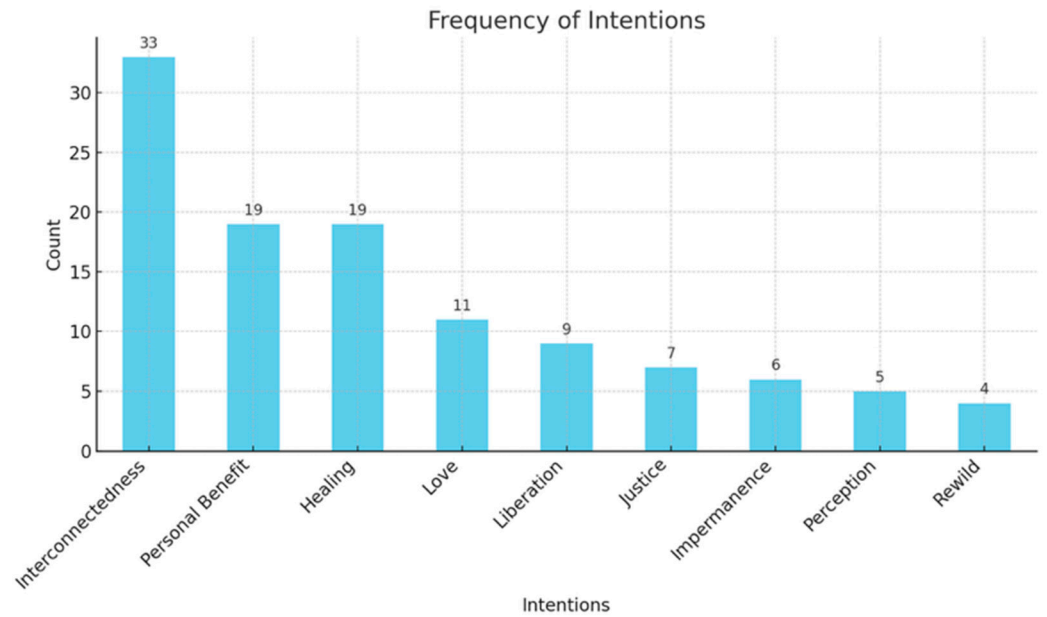
**Figure 5.** Kumu map showing interconnections among inspirations as represented in the dialogues. Letters are random and do not correspond to initials to protect privacy.

**Table 3.** Intentions in order of frequency of mention in the dialogues.

Intentions	Purpose and Motivations for Teaching and Guiding EA
Interconnectedness	To experience interconnectedness and regard oneself as an intimately connected part of Earth.
Personal Benefit	To alleviate an individual’s suffering or discomfort.
Healing	To engage in healing and reparative relationships with oneself, each other, and the land.
Love	To motivate people to love Earth.
Liberation	To become free from suffering, ignorance, attachment, and selfishness in the Buddhist sense.
Justice	To acknowledge systemic injustice and create awareness that builds movement toward equity and justice.
Impermanence	To acknowledge and accept change and the transient nature of lived experience.
Perception	To consciously reflect on perspective in sensory experience as a way to shift perception.
Rewild	To restore land to a natural, uncultivated state, or to reconnect with one’s nature by embracing how we are part of a larger whole and letting go of ideas of separate self.

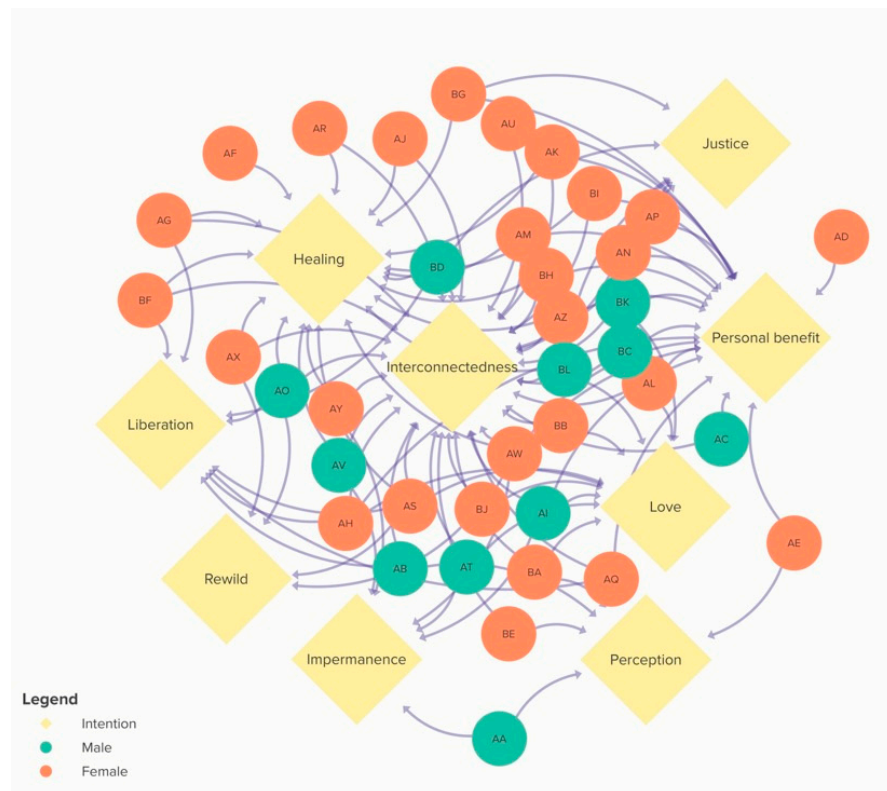
These intentions parallel core planetary health priorities: strengthening ecological connectedness, improving mental and emotional well-being amidst global change, and supporting healing across human and ecological communities. EA thus offers relational and experiential pathways for advancing planetary health outcomes.

The least-mentioned intentions—such as Rewild, Perception, and Impermanence—indicate edges of the EA field as characterized in this study. For example, while some participants described Rewilding as a key outcome of practices to reconnect with Earth, this intention was not widely shared across dialogues. It could represent an area of potential future growth—one that could bring wild nature closer to home, encourage people to engage in rewilding activities, and remind us how nature regenerates and heals over time no matter how damaged.



**Figure 6.** Number of mentions of intentions in the dialogues. Each intention mentioned is counted separately, even if it appeared in combination with others in a single dialogue.

Figure 7 shows the visualization of relationships for intentions in the EA field. Intentions included a higher number of specific codes. This diagram for intentions shows a high amount of relationality among intentions, with every dialogue except for two mentioning multiple intentions. When viewed through different lenses, the same group of people can appear separated with limited interconnections (Figure 3 viewed through traditions), or highly interconnected (Figure 7 viewed through intentions).



**Figure 7.** Kumu map showing interconnections among intentions as represented in the dialogues. Letters are random and do not correspond to initials to protect privacy.

### 3.5. Relationships Among Traditions, Inspirations, and Intentions

Co-occurrence tables offer another way to show relationships among coded variables. The following tables present visual summaries of how the inspirations and intentions related to traditions in this dataset. Gaps indicated by zeroes or low numbers could be due to the small sample size in this study rather than a lack of an actual relationship.

Figure 8 shows darker colors for stronger associations or more frequent co-occurrences. For example, participants frequently mentioned The Land as an inspiration when drawing from Buddhism and Mindfulness traditions. This table also shows sources of inspiration that have broad reach across traditions, such as The Land and Justice.

Figure 9 shows how Buddhism and Mindfulness, which were focus areas in this study, are foundational traditions for fostering Interconnectedness and Healing. Interconnectedness, Healing, and Personal Benefit have broad appeal across traditions, suggesting they are central themes for EA practices cross-traditions.

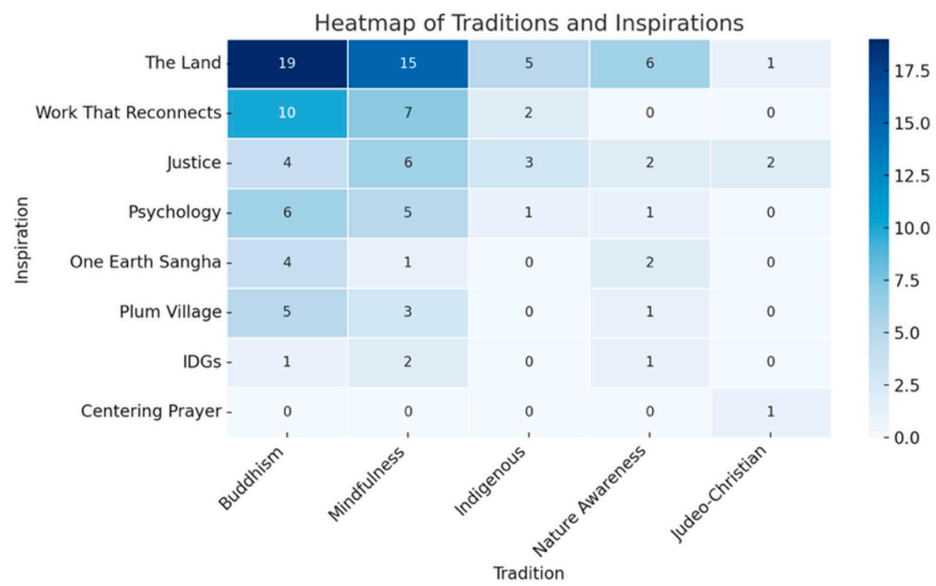


Figure 8. Co-occurrence table of traditions and inspirations shown as a heatmap. Each cell represents the frequency of a specific pairing.

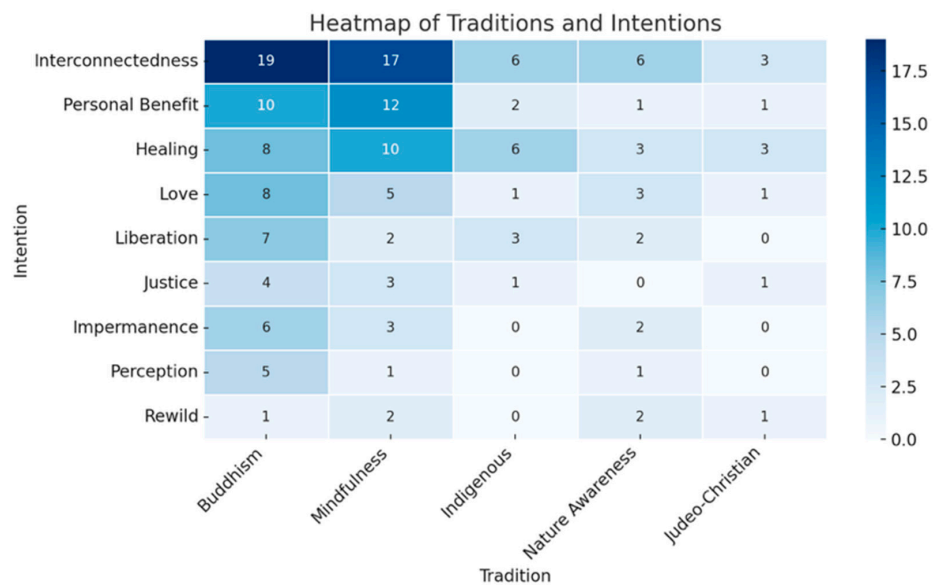


Figure 9. Co-occurrence table of traditions and intentions shown as a heatmap. Each cell represents the frequency of a specific pairing.

### 3.6. Obstacles and Opportunities

Participants reflected obstacles that inhibit fostering deeper connections to the land, as well as opportunities to support the teaching and guiding of EA (see Figure 10). Appendix C includes a detailed list of obstacles and opportunities along with illustrative quotes.



**Figure 10.** Participants identified numerous systems drivers affecting the development of the EA field in the form of obstacles and opportunities. Image design: Stacey McCormack.

Perception of obstacles and opportunities is based on many interacting factors, including race, gender, age, geography, lived experience, personality, and other contextual factors. Many elements could fit in either category and are interrelated in complex ways. For example, “place and geography” has to do with “access to practices” because where people live can affect access to places to practice and teach.

The obstacles and opportunities mentioned across dialogues shape the contours, character, and limits of what the EA field can become. They influence who participates, what practices take root, which lineages are respected or marginalized, and how legitimate and impactful the field can appear.

Participants highlighted several obstacles related to accessibility issues like the high cost of retreats, the cultural relevance of practices, and structural class barriers. These barriers narrow who can meaningfully participate, constraining the field’s demographic and epistemic diversity. Regarding geography and place, the cost and accessibility of suitable retreat venues pose challenges, though emerging resources like Off the Grid Retreats and the Retreat Center Collaboration provide information that can connect teachers with retreat venues. Accessible, private, and inspiring spaces for teaching EA remain critical for developing the field.

Both teachers and students expressed feeling overwhelmed by the demands of modern life. Overwhelm can make it challenging to prioritize land-based practices amidst daily

pressures and distractions like technology. Participants noted a pervasive sense of separateness, including historical and systemic disconnection from the land, compounded by systemic racism and institutional barriers that hinder relationships with self, others, and the rest of Earth. Systemic forces of separateness—including racialized inequities, institutional overwhelm, and cultural patterns of individualism—further isolate teachers and practitioners and limit opportunities for coherence. Additionally, participants described challenges in integrating activism with EA practices, as Western Buddhist spaces can be hierarchical and resistant to change, while environmental activism can be seen as politically charged.

Concerns about credibility also arose, for example, due to a perceived lack of scientific evidence about the effectiveness of practices, and a fear of appearing overly spiritual or esoteric. While mindfulness has an established evidence base, many EA practices—especially spiritual or ritual forms—lack comparable scientific grounding. This can hinder uptake within policy, health, higher education, and sustainability sectors. Bridging contemplative and scientific ways of knowing could help further position the EA field to influence and inform the policy, education, and sustainability sectors at scale.

Lastly, participants emphasized the importance of inter-cultural respect and appropriateness in engaging with Indigenous and traditional practices. Participants expressed concern about cultural appropriation and called for depth, respect, and authenticity when exploring EA practices, rituals, and ceremonies. Concerns about cultural appropriation and the misuse of sacred practices create necessary caution but also inhibit cross-tradition learning, which is essential for the field's evolution. Careful attention to ethical space will help develop the EA field.

Participants revealed several opportunities for advancing EA practices, pointing to the field's capacity to grow through relational cohesion, cultural breadth, and embodied connection with place. Community building among teachers, practitioners, and researchers creates conditions for coherence by strengthening shared language, peer learning, and cross-tradition exchange. Retreats featuring interdisciplinary teachers and subject matter experts could enhance the EA field. Symposia are another way to bring the EA field together and foster trusted "champions" to guide and inspire collective efforts. Maintaining earth-centeredness—especially amidst strong anthropocentric tendencies—presents another key opportunity for common ground across diverse lineages that seek to integrate Earth as a teacher in practice settings.

Strengthening inter-generational relationships is also a key way to expand the field's creative and pedagogical range. Supporting teachers with practical logistical, financial, and administrative resources can reduce burdens and rekindle passion for their work, especially for those outside traditional institutions or without environmental expertise. Cross-sector collaborations could adapt these practices to a wide range of social-ecological issues, demonstrating their versatility. Finally, exploring emergent areas of practice offers further opportunities for teachers to rediscover joy and creativity in EA practices.

Participants highlighted several elements as both an opportunity and obstacle across different dialogues, or sometimes within a single dialogue. Defining EA is an opportunity to broaden its scope and create new integrative hybrid practices, but also an obstacle in how definitions can reinforce logics of separateness, objectification, materialization, and romanticized notions of nature or awareness. Participants favored community-based definitions. Diversity is a critical area of development for the EA field, with affinity retreats (e.g., BIPOC, LGBTQIA) providing opportunities to expand perspectives and increase inclusion, countering systemic barriers to participation. Participants described sanctuaries for healing and protection as vital during times of crisis, and proposed fostering networks of sanctuary builders to help normalize EA approaches. However, sanctuary can be a

short-term “solution” that undermines long-term sustainability if it enables people to take shelter temporarily and then re-engage in patterns of separateness.

## 4. Discussion

### 4.1. Key Recurring Themes

Participants consistently framed EA not as a novel construct but as a modern expression of long-standing, ancient, and mainstream contemplative and Indigenous wisdom lineages [69,70]. Many participants felt that EA is what the Buddha experienced while sitting beneath a bodhi tree. Participants referenced traditional texts while pointing out how upon experiencing enlightenment, the Buddha touched the Earth and stayed in the forest for some time before endeavoring to teach. Some participants highlighted the roots of Buddhism and called for a return to original teachings. This means that there could be promise in cultivating the field by acknowledging the roots of EA as a contemporary expression of ancient wisdom traditions applied to planetary health and well-being [70].

*“Imagine the Buddha living right now. They’d offer something about relationship to the Earth...”*

*“[EA] is actually going back to what the Buddha did. [They] went outside. Taught outside. Lived outside. This is what the instructions said. Go out and sit at the base of a tree. Turn back to the original tradition.”*

Complexity and diversity of approaches to cultivating EA also emerged as themes. For example, teachers can create the conditions for mindfully experiencing nature by directly exploring Ecodharma or using a lighter approach with meditation outdoors. The cultural expression and language used to describe and conceive of EA was quite diverse. This sort of “multilayered diversity within a coherent EA field” underscores the importance of EA teachers holding space for exchange between diverse people and cultures—ethical space between approaches that is based on gratitude, mutual respect, inclusion and belonging, and responsible co-creation of the EA field.

*“There are as many practices as there are people. There is no one practice. Practices are just pointers toward experience and discovery that people can engage with.”*

Participants repeatedly acknowledged how much social-ecological suffering there is in the world today [71]. EA arises within the context of this suffering. For this reason, participants expressed the importance of compassionate approaches that are sensitive to how much people are holding when they engage with EA practices. Some participants described a need for sanctuary to alleviate acute suffering and enable authentic experiences of interconnectedness. Others voiced a direct need for teacher and practitioner support to help reduce feelings of isolation and overwhelm common in industrialized societies today.

*“The house is on fire.”*

*“‘Not enough’ is the nature of the culture we’re enmeshed in. The institutional architecture. This creates contexts in which people are overcommitted, distracted, and overwhelmed... participants and teachers.”*

Another key theme relates to how EA was secular for some participants and deeply spiritual for others. Acknowledging the spiritual dimensions of EA can enable pathways for collaborative relationships with Earth and holding ethical space [72–74]. In many Indigenous traditions, spirit is real [14]. Many participants described a role for EA in helping people acknowledge Earth as a being, an ancestor and a creator of life. Others shared EA practices based on communing with elements (e.g., air or water), landscapes (e.g., mountain or river spirits), and celestial bodies (e.g., moon, sun, or other stars) as alive, sentient beings with intelligence and agency. Participants described how secularization

of mindfulness can make it easier to introduce practices within certain settings such as a school or workplace, but this approach can also materialize spiritual experience in a way that diminishes people's deep, meaningful experiences of interconnectedness.

*"We start with ceremony, we end with ceremony, the whole thing is an acknowledgement of relationship and sacred"*

*"EA can help us see sacredness, living qualities, and aliveness of a place."*

*"Rituals can be specifically about land spirits. Earth spirits. Water spirits. Being in dialogue with them. Being in relationship with these spirits. Acknowledge their sovereignty, and how ecosystems and wildlife have the right to exist on their own without caring about their utility to people. Before getting to healing, a lot is just being in communication, being able to listen and hear the language of Earth."*

#### 4.2. From Awareness to Action

Awareness alone is insufficient for motivating ecologically aware and responsible ways of being. A primary challenge for the EA field is to support integrating insights into action [24,30]. People engaging in practices benefit from scaffolding that helps interpret and create meaning from experiences. They also benefit from support identifying where they have agency for systems change [35]. EA with support for integration and interpretation can be a force for channeling care and concern into responsible action. Participants felt that increased awareness was often tied to an increased sense of responsibility to care for, protect, and restore land, air, waters, and communities.

*"Our overarching goal is to provide space for [participants] to connect purpose to action and change. This involves inner work, collaboration, and systems thinking."*

Interest in awareness-based action grew from an understanding of planetary health as a recognition that health and well-being among people is connected with the health of Earth. From a planetary health perspective, awareness-to-action pathways are crucial [15,33]. EA practices may help cultivate the deep values, relational capacities, and psychosocial resilience needed to support policy, governance, and community-level responses to accelerating planetary crises. Integrating EA into planetary health initiatives could strengthen preparedness, prevention, and adaptation strategies.

#### 4.3. Centering Justice, Inclusion, Equity, and Historical Context in EA Practices

Justice arose throughout this inquiry as a source of inspiration, an intended outcome of EA practice, an opportunity, and an obstacle. Participants expressed justice as especially relevant to EA in the context of people's relationships with land and food. Some felt that the roots of Buddhism grew from equitable access to land and related resources for healing, community, and sovereignty, and that these connections were lost when Buddhism was translated across places and introduced in the West. Racial equity and inclusion are central concerns in many mindfulness communities in the U.S. [21,22,41]. Numerous participants across races described a desire for more Buddhist spaces in which BIPOC people felt like they belonged. Raising up voices from the Global South was described as important for shifting where power is concentrated in society. This study is limited by not having enough information about social distinctions among participants to deeply explore social determinants for the findings. For example, with more demographic data about the participants, we could more effectively explore the role of race, class, and power in the views that were expressed.

*"Buddha Dharma speaks about greed, hatred, and discrimination as sources of suffering. I see so clearly how these play out in larger structural systems of inequality. I don't think we can separate ecological and social harms we're seeing."*

*“I wish more practices had a historical framework. A justice component. Acknowledgement of these lands and people who have lived here before settler colonialist groups arrived. There has been and is a lot of appropriation.”*

Some participants expressed feeling protective of rituals and worried about the appropriation of sacred EA practices in a way that could promote amateurs misusing rituals or ceremonies. Worry of unethical treatment arose most strongly when discussing Indigenous traditions. It is important in this context to acknowledge how science and other societal institutions such as education and spiritual traditions have been used as tools of separation, oppression, marginalization, and erasure of whole peoples, communities, languages, and traditions. These aspects of justice highlight the importance of permission when engaging with EA across diverse cultural traditions.

#### 4.4. Limitations of This Research

This study has several limitations. First, as noted in Section 2: Materials and Methods, we did not collect detailed demographic data, and the sample overrepresented white perspectives, constraining the ability to interpret findings across social identities. Intentionally oversampling particular groups could help better understand cultural, historical, and lineage-based dimensions of EA practice. Second, as described in Section 3.5, the small sample size limits conclusions from co-occurrence patterns, as absences may reflect sampling rather than true lack of relationship. Third, as discussed earlier in Section 4: Discussion, insufficient information about social distinctions among participants limited deeper exploration of how race, class, and power shape perspectives on EA. Additional limitations include the underrepresentation of certain traditions (e.g., Islam and more specific Indigenous communities or Tribal Nations); the lack of quantitative data needed to rigorously test statistical relationships among traditions, inspirations, and intentions; and, as described more fully in Section 5: Conclusions, limited insights from this study into which EA practices are most appropriate for participants with varying levels of experience. Together, these limitations point to important directions for future research and the refinement of methodological approaches.

## 5. Conclusions

This research contributes to emerging scholarship and practice by offering one of the first systematic mappings of Earth Awareness as a relational field across traditions and lineages. By analyzing shared intentions, sources of inspiration, and patterns of obstacles and opportunities, it provides a foundational vocabulary and conceptual structure that practitioners, researchers, and institutions can use to better understand and strengthen EA as a coherent domain.

The findings highlight how EA practices cultivate relational capacities that are increasingly recognized as essential for sustainability transformations, thus offering a practical bridge between inner development and outer systems change. These inner capacities—such as ecological connectedness, compassion, emotional resilience, and a deep sense of responsibility and care for the Earth—align with global frameworks including the Planetary Health Alliance, the UN Sustainable Development Goals, IPBES’s transformative change agenda, and the Inner Development Goals. These frameworks increasingly recognize that achieving sustainable futures requires not only technological and policy interventions but also shifts in values, worldviews, and relational practices.

By illuminating patterns in sources of inspiration and intentions across traditions, this study shows how EA can complement global sustainability efforts through deep, transformative experiences that can motivate regenerative practices and intercultural collaboration toward planetary health. Study participants emphasized that reconnecting with Earth

through ritual, ceremony, and contemplative attention fosters the psychosocial foundations for stewardship and justice—two pillars of planetary health and ecological civilization.

Partnerships across cultures and traditions offer a powerful pathway for grounding EA in shared spiritual foundations of sacred reciprocity, relationality, and reverence for all beings. Such collaborations can help reorient the environmental sector toward deeper forms of wisdom, healing, and ethical responsibility, expanding its scope beyond technical solutions to include inner development and relational accountability. Viewing Earth as a teacher and co-participant affirms a source of guidance that transcends disciplinary boundaries, supporting ongoing learning, stewardship, and the cultivation of planetary consciousness. In this way, EA can help animate a more life-affirming environmental movement rooted in humility, reciprocity, and a shared sense of belonging.

This study lays groundwork for future empirical research and cross-sector collaboration that can support the field's maturation and broaden its contributions to planetary health. Future research could focus on unrepresented traditions (e.g., Islam) and on bridging gaps between traditions. Participants expressed particular interest in deeper engagement at the intersections of Indigenous traditions and Buddhism. Further research could intentionally oversample specific groups, such as Tribal or First Nations communities. With broader quantitative data from additional interviews or a large-scale survey, statistical analyses (e.g., Chi-Square or Fisher's Exact Tests) could more rigorously examine relationships among variables such as traditions and intentions. Including additional variables, such as demographic information, would allow a follow-on study to explore these relationships in greater depth.

Future research could have practical implications of helping to discern which approaches are most suitable for beginner, acquainted, and experienced participants. This could inform a more nuanced design of awareness-building programs. For example, a pathway for beginners to initially become more familiar with Earth could involve natural history and direct observational experience of one's immediate environment (e.g., bird identification at home). A continuation of study and practice could include deeper communion with Earth, such as longer-term engagement with living systems to understand interactions and patterns, how life self-organizes, and the processes and conditions that generate life. Practices related to deep time, elements, spirits, or ancestors may be suitable for participants with more experience and familiarity. Discerning among approaches in this way could enable progressive access to deeper experiential knowledge through preliminary practices, dedication over time, and deep respect, as evidenced through sustained acts of care. This could also support people engaging with EA practices in culturally respectful and appropriate ways, and it could reveal meaningful ways to integrate EA practices into professional settings and local and global sustainability efforts.

This inquiry revealed interest in convening EA teachers and practitioners from across traditions and cultures to build common ground—another pathway for developing the field. Participants called for articulating shared values and developing pedagogical frameworks, principles and protocols for ethical engagement, creative development of new practices and curriculums to meet the current ecological reality, nurturing the field to develop in equitable and accessible ways, and studying which practices are effective at linking awareness with action.

Future development of the EA field may therefore support global sustainability agendas by offering experiential pathways for addressing anthropocentrism, repairing relationships with land and ancestors, strengthening equity, and cultivating the relational capacities needed for collective stewardship and action. As planetary crises deepen, EA provides vital tools for integrating inner transformation with outer systems change, guiding societies toward more compassionate, culturally grounded, and life-affirming futures.

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**Institutional Review Board Statement:** The study consisted solely of voluntary interviews with adults, did not involve interventions or collection of identifiable or sensitive data, and all records were anonymized. Data were stored securely, accessible only to the author, and all findings were reported in aggregate or with anonymized quotations to ensure confidentiality. Informed consent was obtained from all participants. Therefore, based on U.S. federal regulations governing human subjects research, this project met the criteria for exemption under 45 CFR 46.104(d)(2) ('Exemption Category 2'). This provision exempts research involving educational tests, survey procedures, interview procedures, or observation of public behavior when (a) information obtained is recorded in such a manner that human subjects cannot be readily identified, and (b) disclosure of responses would not place subjects at risk. The project was advised throughout by a steering committee and Garrison Institute staff with formal training in ethical research methodologies and free, prior, informed consent, who approved the research design and confirmed the study posed no risk to individuals.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** Data are unavailable due to privacy restrictions.

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## Abbreviations

The following abbreviation is used in this manuscript:

EA Earth Awareness

## Appendix A. Semi-Structured Interview Questions

Shared introduction and background about the study, including purpose, focus on main questions, definition of EA, sources of support, and steering committee.

### *Understanding Practices and Language That Describes EA*

We're interested to learn about practices you teach or guide others in, less interested in practices you engage in personally on your own.

Can you please share about an Earth awareness practice, ritual, or ceremony you engage with? Can you help me understand what Earth awareness practice looks like for you?

- What do people do? For example, sitting, walking, engaged with the land like farming, singing, dancing.
- Who do you engage with while practicing? For example, one on one, small groups, large groups. Could you share more about participants?
- Where does this practice occur? Outside or inside? What determines the place?
- When does this practice occur? Time of day, time of year, frequency, etc.

What would you call this practice, ritual, or ceremony? How do you feel about the term "Earth awareness" or "Earth-based practices?"

- How much do people of different backgrounds see themselves in these practices or as part of a field?
- Examples: Earth awareness, Earth-based practices, Ecodharma, meditation and mindfulness practices brought to the ecological crisis, land based healing, or specific prac-

tices like Earth-based body scan, elements meditation, Tonglen as Ecodharma, animistic wisdom traditions, tuning in to Mother Earth, etc.

#### *Exploring Purpose and Motivations of Practice*

Why do you and others engage with this practice? What's the purpose of the practice? What are motivations and intentions? Examples of intentions for practice:

- Soothing discomfort or sitting with discomfort. Palliative care, especially with emotions that arise when confronting ecological crises.
- Process difficult emotions like climate grief, anger, despair, and growing eco-anxiety.
- Manage oneself or self-regulating in response to climate impacts.
- Empower people to be more constructively engaged. Empower activism to counter injustice.
- Experience or be reminded of interbeing, interdependence, nonseparation.
- Deepen human-Earth connection and relationship. Be like nature, think like nature, and be aligned with nature, which could help people be better healing agents.
- Confront a very unequal world, systemic racism, injustice.
- Reduce consumerism or motivate simpler, less consumptive lifestyles.
- Alter or influence perception.
- Liberate.

Are particular practices more effective for specific purposes?

#### *Exploring Relationships and Networks*

Who else is doing this sort of work? How do you know them? Where are places that you consider centers of Earth awareness practice?

#### *Thoughts on Developing the Field*

What are opportunities and obstacles for people to engage with these practices more broadly? Strategies for reaching people? Strategies for facilitating exchange among practitioners? What would be needed:

- To bring these practices to more people?
- To strengthen practices?
- To support this kind of work?

What are adjacent fields of practice that we could consider focusing on? What are edges of the field of Earth awareness practices that would be good to consider growing?

#### *Wrapping Up*

Would you be interested to stay connected with this project and learn about how it develops? Is there anyone else you recommend we consider speaking with?

## **Appendix B. Notable Examples of Earth Awareness Practices**

*Ecodharma Retreats.* Multi-day retreats designed to connect participants with Earth while integrating meditation, mindfulness, and ecological awareness. They often combine meditation, dharma talks, and nature immersion, and may culminate in solo wilderness experiences.

- Structure:
- Multi-day events, often in remote, natural locations.
- Days may begin with solo meditation in nature, followed by dharma talks and group sharing.
- Activities include walking meditation on trails, nature observation, and silent reflection.
- Some retreats include dharma sharing, grief and rage rituals, 1–3 day solo immersions in wilderness that evoke nature kinning, offerings to the land, and ancestor ceremonies.

- Focus: Cultivating gratitude, processing ecological grief, and fostering a sense of deep lineage and interconnectedness with the natural world.
- Example: At the Rocky Mountain Eco-Dharma Retreat Center, participants meditate outdoors, reflect on grief and anger through deep rituals, and transform relationships with Earth through embodied and experiential healing and learning practices.

*Climate Cafes and Youth Resilience Programs.* Safe, supportive spaces for discussing eco-anxiety, building emotional resilience, and fostering activism.

- Structure:
- Informal, conversational gatherings for young people.
- Participants share their emotions about the climate crisis in a nonjudgmental environment.
- Activities include mindfulness exercises, creative expressions, and storytelling.
- Focus: Addressing the emotional and mental health challenges of climate change, particularly for youth in the Global South and Indigenous communities.
- Example: Zen-inspired Climate Cafes facilitate discussions that help participants alchemize emotional energies to transition from anxiety to empowerment, solidarity, and collective action.

*Mindfulness-Based Sustainability Transformations.* Integrate mindfulness practices with climate leadership and systemic change.

- Structure:
- Courses and leadership workshop often involve lectures, practice labs, and personal reflection exercises.
- Students engage in home practices like meditation or journaling on sustainability topics.
- Facilitators introduce mindfulness techniques tailored to modern ecological challenges.
- Focus: Inner transformation to complement external sustainability efforts, helping individuals build emotional resilience and systemic awareness.
- Example: In Search Inside Yourself Leadership Institute programs focused on the environment, participants learn how mindfulness reduces stress while enhancing engagement and hope in addressing environmental crises.

*Vision Quests and Rites of Passage.* Deepen personal transformation and connection with the natural world.

- Structure:
- Participants spend extended time in nature, often fasting and reflecting in solitude with training provided in advance and support for a safe and healthy return.
- Guides support preparation and integration of insights gained during the experience to help participants make sense of deep experiences.
- Practices include sitting with intentions, listening to nature, and journaling.
- Focus: Cultivating self-awareness, spiritual renewal, and a profound sense of belonging to Earth.
- Example: The School of Lost Borders offers wilderness vision quests designed to help participants confront egoic limitations and connect with their larger purpose.

*Leadership Retreats in Nature.* Engage leaders in exploring their roles in ecological and social change through nature immersion.

- Structure:
- Multi-day-long programs with individual and group activities.
- Leaders reflect on questions like “Who am I?” and “What is my role?” and “What is my purpose?”
- Activities include solo nature experiences, gratitude practices, and leadership coaching.
- Focus: Helping leaders align their purpose with actionable steps for systemic transformation.

- Example: Retreats like Purpose Quest or programs affiliated with Synergos or Channel Rock in British Columbia, Canada pair leadership coaching with nature-guided reflection.

*Nature Awareness Practices.* Cultivate mindfulness and connection with place through sensory immersion in nature.

- Structure:
- Participants spend quiet, reflective time sitting or moving slowly and mindfully in an outdoor environment.
- Activities may involve guided meditations, silent walks, or simply sitting and observing all that arises.
- Emphasis on engaging all senses, such as listening to birds, feeling the ground, seeing the wind move, smelling and tasting the air, and sensing Earth.
- Focus: Encouraging relaxation, curiosity, and a sense of wonder through simple, direct interactions and observations with nature.
- Example: Sit spots are commonly used in retreats. Forest bathing sessions are offered for students, staff, and faculty at the University of Maryland, College Park to help participants reduce stress and rediscover connection with the immediate environment in which they work, learn, and reside.

*The Work That Reconnects.* A framework developed by Joanna Macy that helps individuals process grief and eco-anxiety while fostering empowerment.

- Structure:
- Workshops and retreats guide participants through four stages of an ongoing spiral:
- Gratitude: Recognizing what we cherish about life and the Earth.
- Honoring Pain and Suffering: Facing emotions like loss, anger, and fear without denial.
- Seeing with New Eyes: Understanding interdependence and ecological systems.
- Going Forth: Identifying how to take meaningful action.
- Activities include interactive exercises like Truth Mandalas, role-playing, and guided meditations.
- Focus: Building emotional resilience and community solidarity to inspire environmental activism.
- Example: Programs often integrate storytelling and rituals to process grief and awaken a sense of collective agency.

*Contemplative Nature-Based Practices.* Combine meditation, mindfulness, and nature immersion for spiritual and personal growth.

- Structure:
- Practices include mindful breathing with the elements, walking meditations, and sensory awareness exercises.
- Retreats often occur in remote or semi-wild settings, but also occur in urbanized or industrial settings such as the parking lot of a petrochemical plant in a large American city.
- Participants are encouraged to view nature in all manifestations as a co-teacher, learning from stillness, impermanence, and interdependence.
- Focus: Deepening awareness of the interconnectedness of all life, fostering reverence for Earth in a variety of forms, and cultivating acceptance.
- Example: Awake in the Wild retreats use practices like “Earth Breathing” and “Reciprocity Meditations” to guide participants in connecting with their surroundings. Contemplative practice can be integrated with accessible activities, such as mindful gardening through tending soil, planting seeds, watering, cultivating, harvesting, and consuming.

## Appendix C. Statements of Obstacles and Opportunities

**Table A1.** Alphabetized list of obstacles and opportunities as expressed and heard in dialogues, including elements described as both an obstacle and an opportunity across dialogues.

Element	Type	Illustrative Quotes
Access to practices	Obstacle	<p><i>"Costs of retreats can be a barrier."</i></p> <p><i>"Teachers may not have land themselves."</i></p> <p><i>"Class is an obstacle. The way meditation retreats are offered, even if they're free—people having a week off work to go on retreat already valences it in terms of class."</i></p>
Action	Obstacle	<p><i>"How can we bring activism to practitioners? This needs to come from teachers."</i></p> <p><i>"Many Dharma spaces are hierarchical. . . Conservative because they're based on ancient tradition. Change is difficult, especially from people new to the space."</i></p> <p><i>"Environmental activism has been seen as a political point of view. . . so Dharma centers may be reluctant to engage because they're just trying to reach everyone."</i></p> <p><i>"Targeting activists with their own language and theory of change is strategic. . . there is a real opportunity to combine nonviolent direct action with earth-based practice."</i></p>
Community	Opportunity	<p><i>"Communities of teachers sharing experiences with others is important."</i></p> <p><i>"Need to bring together researchers and practitioners more so they understand each other better and can learn from each other."</i></p>
Credibility	Obstacle	<p><i>"It can be tough to evaluate what has scientific evidence with it. What is the level of scientific proof that [a practice] works. This can be challenging and can be hard to find. [Scientifically credible evidence] is most available for mindfulness practice."</i></p> <p><i>"There is fear of the woo-woo."</i></p>
Cross-sector issues	Opportunity	<p><i>"Could the same approaches be useful for activists involved with a range of issues, for example immigration, animal rights, LGBTQ, race-based issues?"</i></p>
Defining Earth awareness practice	Both	<p><i>"Be mindful of romanticizing and qualifying what counts as nature or not."</i></p> <p><i>"Create a new genre. A new hybrid quality of practice, which needs its own economy. Create a different genre of political, awake, decolonial, spiritual Earth practice."</i></p> <p><i>"Reframe what we mean by Earth-based practices: to develop intimacy with the presentation of the Earth in all forms, including unexpected forms."</i></p>
Diversity	Both	<p><i>"Affinity retreats (e.g., BIPOC, LGTBQIA) are an opportunity to broaden the conversation, expand views of definitions, and bring in different ways of articulating practices."</i></p> <p><i>"Creating space to gather Indigenous people in particular could be an opportunity."</i></p> <p><i>"Low BIPOC participation and the whiteness of mindfulness presents an obstacle."</i></p>
Earth-centeredness	Opportunity	<p><i>"There must be some attention back to the physical land. Not as an inanimate object, but a living, functioning, dynamic being that we have to learn how to be back in collaboration with. We have to work with the land in order for the land to work with us."</i></p> <p><i>"There is an opportunity to acknowledge that we are expressions of the land. The land is expressions of us and our bodies."</i></p> <p><i>"What happens if I bring myself to consider the Earth sitting in one of the chairs during my teaching?"</i></p> <p><i>"We need some Earth church or Earth temple, where Earth is the teacher."</i></p>
Emergent new areas	Opportunity	<p><i>"This can be a way to re-light a fire in our teaching. . . If it's new enough, one can re-find joy in their teaching and life."</i></p>
Healing and protection	Both	<p><i>"Sanctuary building. The crisis has arrived. How can we decide how we are going to be in a time of collapse?"</i></p> <p><i>"There are big questions, like what are we building [sanctuary] for?"</i></p> <p><i>"Being part of a network of sanctuary builders. . . changes how we show up."</i></p> <p><i>"We need a sanctuary where people can think with the planet, get inspired, and get reassured that this is not a crazy thing to do. It can be a relief and make it easier for people to give themselves permission to become Earth. People are worried about being seen as crazy."</i></p>
Inter-cultural respect	Both	<p><i>"People need to understand and respect protocols for rituals that communities hold as sacred."</i></p> <p><i>"I see a lot of jumping around among traditions. There's a need to go deep with a practice."</i></p> <p><i>"There is a fear of appropriating Indigenous culture."</i></p>
Inter-generational relationships	Opportunity	<p><i>"There are opportunities related to deep time and ancestors and future generations, especially with artistic ways to depict this."</i></p> <p><i>"Elders in my community understood Earth awareness a little more than people my age. . . there is an opportunity for social culture recentering of Eldership. . . to recognize the value of Eldership and bring the language of Eldership back into the collective."</i></p> <p><i>"There needs to be support and training for young people to be in relationship with Elders. And on the other end supporting Elders to be in relationship with young people."</i></p>
Overwhelm	Obstacle	<p><i>"The amount of stuff happening today can be an obstacle. It can be too much."</i></p> <p><i>"I think people can feel overwhelmed. Returning to the land can feel like another thing on top of what people are trying to do in their lives."</i></p> <p><i>"Think of everything that capitalism pushes us to do to survive. So, we feel like we can't think about the land. How do we create space in our daily lives?"</i></p>

Table A1. Cont.

Element	Type	Illustrative Quotes
Place and geography	Both	<p>“This field lacks suitable places for holding retreats. Parks can involve permits. Private landowners can be expensive.”</p> <p>“New places have recently set up support for retreats in nature. Off the Grid Retreats lists potential places and assists teachers to get it going.”</p> <p>“The need to travel between places has limited my ability to engage [broadly].”</p>
Separateness	Obstacle	<p>“How do we translate practices across communities that are experiencing and have experienced severe disconnection from the land?”</p> <p>“Isolation [of teachers and students]. There’s little exchange and connective tissues, so learning is hampered.”</p> <p>“In many ways, I was taught to be afraid of the land. Climate change is intensifying people’s distrust and fear of the natural world.”</p>
Systemic forces	Obstacle	<p>“Systemic racism.”</p> <p>“Dominant systems have limited and conditioned me into not perceiving relationship and connection.”</p> <p>“The nature of the culture that we’re enmeshed in is an obstacle. The institutional architecture. This creates contexts in which people are overcommitted, overwhelmed, and distracted, by things that may be much more exciting to human biology and physiology than Earth awareness [like screens]. So, we need to create a slower space in which transformative processes can take place.”</p>
Teacher support	Opportunity	<p>“Teachers benefit from support with infrastructure, registration, insurance, logistical support.”</p> <p>“People must feel resourced amidst the difficulty and challenges like fatigue from social media or emails. . . I’m not situated in a big training institution. Though we’ll offer the program out through some places I’m connected with. They have trained a lot of teachers, and they can provide a good way to market.”</p> <p>“Many teachers don’t feel they have expertise in the area of environment.”</p>

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