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An Archetypal Ecology of Learning: Engaging Ecological Emotions, Place, and Ethical Action in Outdoor and Environmental Education

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Research Article

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Abstract

Outdoor and environmental education increasingly recognizes that ecological crises are experienced not only as biophysical disruptions but also as relational, emotional, and ethical challenges that shape how learners connect with the more-than-human world. Yet persistent gaps between environmental awareness and sustained ethical action suggest the need for conceptual frameworks that integrate ecological knowledge with lived experience, ecological emotions, and place-based responsibility. This conceptual paper develops an archetypal ecology of learning by bringing together holistic ecological literacy, nature relatedness, environmental identity, Jungian archetypal theory, narrative pedagogy, ecopsychology, and ecojustice-oriented education. Focusing on three archetypal narratives from Clarissa Pinkola Estés's *Women Who Run with the Wolves*—Vasalisa the Wise, Skeleton Woman, and La Loba—the paper offers a comparative archetypal–ecopsychological analysis structured around shared analytical dimensions: core outdoor encounter, dominant ecological emotions, ecological literacy capacity, and pedagogical implications for outdoor and environmental education. The analysis proposes that Vasalisa supports attunement and orientation in uncertain environments, Skeleton Woman legitimizes encounters with ecological loss and cyclical change, and La Loba foregrounds restorative ethical action grounded in care for damaged places. The paper discusses how this framework advances environmental education beyond knowledge transmission, extends ecoliteracy by integrating emotion, identity, and ethics, and offers practice-relevant implications for outdoor educators, including attentiveness-based entry practices, reflective dialogue at damaged sites, and place-responsive stewardship or community-engaged restoration. The article concludes by outlining how the proposed heuristic framework can guide future empirical research on narrative, ecological emotions, and learning outdoors.

Introduction

Contemporary environmental crises are increasingly understood as more than biophysical disruptions; they are lived as relational, emotional, and ethical challenges that shape how individuals experience their connection to the more-than-human world. Despite the growing availability of scientific knowledge about climate change and ecological degradation, a persistent gap remains between environmental awareness and sustained ethical action (McBride et al., 2013). Research in environmental and outdoor education suggests that this gap cannot be adequately explained by cognitive deficits alone but is closely linked to how learners emotionally process ecological loss, uncertainty, and responsibility in specific places (Ojala, 2016; Pihkala, 2020).

Emerging scholarship has highlighted *eco-anxiety* and *ecological grief* as increasingly common responses to experienced or anticipated environmental loss, including species extinction, habitat degradation, and the transformation of meaningful places (Cunsolo & Ellis, 2018; Pihkala, 2020). These responses are not pathological reactions but reflect the depth of human–nature relationships and the significance of place attachment for wellbeing and ethical engagement (Cunsolo & Ellis, 2018). When such emotional experiences are unacknowledged or marginalized in educational contexts, learners may

disengage, experience paralysis, or develop defensive forms of denial, even when learning occurs outdoors and in direct contact with nature (Ojala, 2016; Verlie, 2019).

Outdoor and environmental education offers a distinctive pedagogical context for addressing these challenges, as learning is situated *in* places rather than abstracted from them. Foundational perspectives in outdoor education emphasize that learning outdoors is relational, embodied, and experiential, involving ongoing interactions among learners, educators, and the environments in which learning takes place (Priest, 1986). Place-based and place-responsive pedagogies further argue that meaningful environmental learning emerges through sustained engagement with specific landscapes, their ecological conditions, and their cultural-historical meanings (Wattchow & Brown, 2011; Gruenewald, 2003). From this perspective, outdoor settings are not neutral backdrops but active participants in learning processes that shape perception, emotion, and ethical orientation.

However, while outdoor and environmental education research has extensively documented experiential learning outcomes, comparatively less attention has been given to how learners make sense of ecological loss, mortality, and regeneration encountered in outdoor settings (Russell & Oakley, 2016; Verlie, 2019). Addressing ecological crisis through outdoor learning therefore requires pedagogical frameworks capable of engaging emotional complexity without reducing learning to therapeutic intervention or instrumental behavior change (Ojala, 2016; Pihkala, 2020). Such frameworks must support learners in recognizing loss, sustaining relational connection, and imagining ethical responses grounded in place.

Narrative and mythic traditions offer one underexplored pathway for engaging these dimensions of learning. Stories and myths have long functioned as cultural tools for organizing human experiences of uncertainty, loss, transformation, and belonging, particularly in relation to natural environments (Abram, 1996). From a Jungian perspective, archetypal narratives are not merely symbolic representations but patterned modes of experience that shape how individuals and cultures encounter fundamental life processes, including initiation, death, and renewal (Jung, 1968). When engaged reflexively, archetypal stories can provide shared symbolic languages through which learners interpret ecological disruption and locate themselves ethically within changing landscapes.

This paper brings together three archetypal narratives from Clarissa Pinkola Estés's *Women Who Run with the Wolves*—**Bilge Vasalisa (Vasalisa the Wise)**, **İskelet Kadın (Skeleton Woman)**, and **La Loba (Bone Woman)**—to develop a conceptual framework for outdoor and environmental education. Rather than treating these stories as pedagogical metaphors, the paper interprets them as interconnected archetypal processes that illuminate distinct yet related dimensions of human–nature relationships relevant to learning outdoors (Estés, 1992; Jung, 1968). Each narrative addresses a different moment in an ecological learning journey: Vasalisa foregrounds intuitive orientation and attentiveness in uncertain environments; İskelet Kadın confronts learners with cycles of loss, decay, and regeneration; and La Loba centers restorative action and ethical responsibility in degraded or damaged places.

Together, these narratives form a sequential but non-linear framework for understanding how outdoor learning can engage ecological emotions and support ethical action. Vasalisa's journey through the forest highlights the role of intuition, sensory awareness, and trust in navigating complex environments—capacities central to embodied outdoor learning (Wattchow & Brown, 2011). İskelet Kadın's encounter with death and reanimation reflects the necessity of acknowledging ecological loss and mortality as integral to system thinking and resilience, rather than avoiding discomfort in outdoor contexts (Capra, 1996; Cunsolo & Ellis, 2018). La Loba's act of collecting bones and singing life back into them offers a vision of restorative engagement that resonates with place-based practices of care, repair, and ethical response in outdoor education (Bowers, 2002; Gruenewald, 2003).

The purpose of this conceptual paper is to examine how these three archetypal narratives can inform outdoor and environmental education by offering a coherent framework for engaging ecological grief, environmental identity, and ethical responsibility through place-based learning. Drawing on Jungian archetypal theory, ecopsychology, and outdoor education scholarship, the paper explores how Vasalisa, Skeleton Woman, and La Loba together articulate an archetypal ecology of learning that moves from attunement, through confrontation with loss, toward restorative action. By situating these narratives within contemporary debates on eco-anxiety, ecological grief, and place-responsive pedagogy, the study aims to contribute to ongoing discussions about how outdoor education can address the emotional and ethical dimensions of environmental crises while remaining grounded in educational—rather than therapeutic—practice. Prior research has highlighted that ecological literacy involves not only cognitive understanding but also affective and relational dimensions shaping human–nature relationships (Özgün, 2018).

Conceptual Framework

This study develops a conceptual framework that brings together holistic ecological literacy, human–nature relationships, Jungian archetypal psychology, narrative pedagogy, and ecojustice-oriented education to interpret three archetypal narratives—Vasalisa the Wise, Skeleton Woman, and La Loba—as interconnected processes relevant to outdoor and environmental education. Rather than treating these stories as illustrative metaphors, the framework positions them as archetypal configurations that illuminate how learners may orient themselves, confront ecological loss, and engage in restorative action within place-based learning contexts (Jung, 1968; Estés, 1992).

At its core, the framework assumes that outdoor and environmental learning unfolds through relational, affective, and ethical processes that cannot be reduced to knowledge acquisition alone. Learning outdoors involves encounters with uncertainty, loss, and responsibility that are lived through bodies, emotions, and places (Priest, 1986; Wattchow & Brown, 2011). The three narratives examined here are therefore approached as distinct yet interrelated modes of ecological sensemaking that correspond to key dimensions of outdoor learning: attunement and orientation, encounter with loss and cyclical change, and restorative ethical action.

1. Holistic Ecological Literacy as a Systemic Orientation

Ecological literacy has been conceptualized as an integrative capacity to understand ecological systems, recognize interdependence, and act responsibly within them (Orr, 1992). Systemic approaches to ecological literacy emphasize that ecological understanding emerges from recognizing patterns, feedback loops, and relationships rather than from mastering isolated facts (Capra, 1996). In outdoor and environmental education, this systems perspective aligns with pedagogies that foreground place, experience, and relational learning over abstract instruction (Wattchow & Brown, 2011).

However, debates within environmental education have highlighted persistent ambiguities surrounding "literacy" concepts and their educational implications (McBride et al., 2013). This framework adopts a holistic interpretation of ecological literacy that integrates cognitive understanding with affective engagement, identity formation, and ethical orientation—dimensions that are especially salient in outdoor learning contexts where learners encounter ecological complexity directly (Orr, 1992; Sterling, 2001).

Within this orientation, the three archetypal narratives can be understood as addressing different systemic dimensions of ecological literacy. Vasalisa the Wise foregrounds attentiveness, intuition, and orientation in uncertain environments; Skeleton Woman confronts learners with cycles of loss, decay, and regeneration that are fundamental to ecological systems; and La Loba centers restorative engagement and ethical response in degraded landscapes. Together, they articulate a systemic view of ecological learning that moves beyond linear models of awareness-to-action.

2. Nature Relatedness and Environmental Identity in Outdoor Learning

Research on human–nature relationships underscores the importance of emotional and experiential connection for environmental learning and engagement. The concept of *nature relatedness* conceptualizes this connection as a multidimensional relationship encompassing affective, cognitive, and experiential closeness to the natural world (Nisbet et al., 2009; Ozgun & Ozgun, 2019). Studies have shown that higher levels of nature relatedness are associated with wellbeing, environmental concern, and engagement with nature-based activities, particularly when learning occurs through direct, embodied experience (Nisbet & Zelenski, 2013).

Closely related, *environmental identity* refers to the degree to which individuals perceive themselves as part of the natural world and integrate this relationship into their sense of self (Clayton, 2003). Environmental identity research suggests that pro-environmental action is more likely when care for nature is experienced as an expression of selfhood rather than as an external obligation (Clayton, 2003). Outdoor education provides fertile ground for the development of such identities by situating learning within meaningful places and lived experiences (Wattchow & Brown, 2011).

Within this framework, *Vasalisa the Wise* can be interpreted as an archetypal narrative of orientation and attunement. Vasalisa's journey through the forest emphasizes listening, trust in embodied intuition, and

responsiveness to subtle cues—capacities that resonate with the development of nature relatedness through sensory engagement and attentiveness in outdoor settings (Nisbet et al., 2009). This narrative highlights the initial conditions of ecological learning: cultivating openness, curiosity, and relational awareness necessary for engaging complex environments.

3. Jungian Perspective: Archetypes, the Psychoid Dimension, and Place

The Jungian dimension of the framework rests on the premise that archetypes structure recurrent patterns of human experience and meaning-making, particularly in relation to life processes such as initiation, loss, and renewal (Jung, 1968). Archetypes are not fixed images but dynamic organizing tendencies that shape perception, emotion, and action across cultural contexts. This perspective allows the three narratives to be read as experiential configurations rather than didactic stories.

Jung's notion of the *psychoid* dimension further complicates the human–nature relationship by suggesting that archetypal processes are not confined to the psyche but emerge at the interface of psyche and matter (Jung, 1968). From this viewpoint, encounters with place—forests, shorelines, deserts—are not merely external stimuli but participate in the formation of meaning and affect. This insight aligns with ecopsychological critiques of modern dualisms that separate mind from nature and knowledge from experience (Roszak, 1992; Abram, 1996).

Skeleton Woman is particularly salient in this regard. The narrative confronts learners with death, decay, and regeneration as inseparable aspects of life, challenging romanticized notions of nature as harmonious or benign. In outdoor education, such encounters often arise when learners face damaged ecosystems, animal remains, or visible signs of ecological loss. Interpreted archetypally, Skeleton Woman offers a framework for holding these experiences without avoidance, allowing learners to recognize loss as integral to ecological systems rather than as a failure to be denied (Capra, 1996; Cunsolo & Ellis, 2018).

4. Narrative Pedagogy and Storytelling: Bridging Emotion and Knowledge

Narrative has long been recognized as a fundamental mode through which humans organize experience and construct meaning (Bruner, 1991). In educational contexts, storytelling can function as a bridge between abstract knowledge and lived experience, integrating emotion, value, and cognition (Dahlstrom, 2014). Environmental education scholars have increasingly argued that narrative approaches can support learners in grappling with uncertainty, ambiguity, and moral complexity associated with ecological crises (Ojala, 2016).

At the same time, narrative pedagogy requires ethical care, as stories possess persuasive power that can either open reflective space or foreclose critical engagement (Dahlstrom, 2014). Within outdoor education, narrative approaches are most productive when they are place-responsive—emerging from specific landscapes and experiences rather than being imposed as universal explanations (Gruenewald, 2003).

In this framework, the three narratives function as *pedagogical story-structures* that can support reflective outdoor learning. Vasalisa invites attentiveness and orientation; Skeleton Woman legitimizes encounters with loss and discomfort; and La Loba offers a narrative of care and reanimation that connects meaning-making to ethical action. Storytelling thus becomes a way of integrating scientific understanding with emotional and ethical engagement, rather than an alternative to empirical knowledge (Bruner, 1991; Dahlstrom, 2014).

5. Ecojustice, Epistemological Barriers, and Transformative Education

Environmental degradation is unevenly distributed and deeply entangled with social, cultural, and economic inequalities. Ecojustice-oriented education emphasizes that environmental learning must address these interconnections rather than focusing solely on individual behavior change (Bowers, 2002; Martusewicz et al., 2015). From this perspective, outdoor education must avoid romanticizing nature experiences and instead engage with the historical, cultural, and political dimensions of place (Gruenewald, 2003; Wattchow & Brown, 2011).

Educational research has also identified epistemological and psychological barriers that limit environmental action, even when knowledge is present. These include denial, emotional overload, perceived inefficacy, and value conflicts—factors conceptualized as “dragons of inaction” in climate psychology (Gifford, 2011). Eco-anxiety and ecological grief can intensify these barriers if they remain unacknowledged within learning contexts (Pihkala, 2020).

La Loba addresses these challenges by foregrounding restorative engagement rather than avoidance or despair. The act of gathering bones and singing life back into them can be interpreted as an archetypal response to ecological loss that integrates grief with responsibility and care. In outdoor education, this resonates with place-based practices of restoration, stewardship, and community engagement that invite learners to respond ethically to damaged environments without assuming mastery or control (Bowers, 2002; Gruenewald, 2003; Ozgun, 2025).

6. Integrating the Three Narratives as an Archetypal Ecology of Learning

Taken together, Vasalisa the Wise, Skeleton Woman, and La Loba articulate an archetypal ecology of learning relevant to outdoor and environmental education. This ecology does not prescribe a linear sequence but offers a set of interrelated processes through which learners may move: orientation and attunement, encounter with loss and cyclical change, and restorative ethical action. Each narrative illuminates a different dimension of ecological learning while remaining embedded in place, experience, and relationship.

By integrating holistic ecological literacy, nature relatedness, Jungian archetypal theory, narrative pedagogy, and ecojustice perspectives, this conceptual framework provides a basis for interpreting outdoor learning experiences that involve emotional complexity and ethical challenge. The following analysis applies this framework comparatively across the three archetypal narratives—Vasalisa the Wise,

Skeleton Woman, and La Loba—to examine how distinct yet interrelated archetypal processes of orientation, encounter with ecological loss, and restorative action can inform outdoor and environmental education practices in place-based contexts.

Methodology

Research Design

This study adopts a conceptual, comparative, and interpretive research design aimed at developing a theoretically grounded framework for outdoor and environmental education. As a conceptual paper, it does not involve empirical data collection or human participants. Instead, the study synthesizes and interprets existing theoretical literature and archetypal narratives to clarify how ecological emotions, place-based learning, and ethical action may be integrated in outdoor education contexts (Sterling, 2001; McBride et al., 2013).

Conceptual research is particularly appropriate in environmental and outdoor education, where complex phenomena—such as ecological grief, meaning-making, and human–nature relationships—cannot be adequately captured through single-method empirical designs alone (Orr, 1992). The purpose of this study is therefore theory-building rather than theory-testing.

Analytical Strategy

The analysis follows a *comparative archetypal–ecopsychological approach* grounded in Jungian analytical psychology and interdisciplinary theoretical synthesis. Three narratives—Vasalisa the Wise, Skeleton Woman, and La Loba—were selected because they represent distinct yet interrelated archetypal configurations addressing orientation, loss, and restoration in relation to the more-than-human world (Jung, 1968; Estés, 1992).

Rather than treating the narratives as literary texts to be decoded, the study interprets them as experiential patterns that organize perception, emotion, and ethical orientation. Each narrative was examined using a shared set of analytical dimensions derived from outdoor and environmental education literature, ecopsychology, and ecological literacy research. These dimensions include:

(a) the type of outdoor encounter foregrounded,
(b) the dominant ecological emotions engaged,
(c) the dimension of ecological literacy supported, and
(d) the pedagogical implications for outdoor and environmental education.

These dimensions are summarized in Table 1 and function as a heuristic analytical framework guiding the interpretation. The table does not represent a coding scheme or empirical categorization, but rather a structured conceptual scaffold that enhances transparency and coherence in the comparative analysis (Jung, 1968; Orr, 1992; Wattchow & Brown, 2011).

Theoretical Triangulation

To strengthen interpretive rigor, the archetypal analysis is supported through theoretical triangulation, integrating insights from four interrelated bodies of scholarship:
(1) outdoor and place-based environmental education,
(2) ecological literacy and systems thinking,
(3) ecopsychology and human–nature relationships, and
(4) ecojustice-oriented education.

By situating archetypal interpretations within these established literatures, the study avoids relying on narrative interpretation alone and instead positions the analysis within broader scholarly conversations relevant to outdoor education (Roszak, 1992; Bowers, 2002; Gruenewald, 2003).

Scope and Limitations

Given its conceptual nature, this study does not claim empirical generalizability. The narratives analyzed originate from particular cultural traditions and are interpreted through a Jungian theoretical lens, which may not align with all epistemological perspectives. The proposed framework is therefore offered as a heuristic and generative resource for outdoor and environmental educators rather than as a prescriptive or universally applicable model.

Future research may empirically examine how archetypal narratives function in outdoor learning contexts, including teacher education, youth programs, and community-based environmental initiatives. Qualitative studies exploring learners' emotional responses, sensemaking processes, and ethical engagement in relation to these narratives would provide valuable empirical extensions of the conceptual framework proposed here (Ojala, 2016; Verlie, 2019).

Analysis: An Archetypal Reading for Outdoor and Environmental Education

This analysis examines Vasalisa the Wise, Skeleton Woman, and La Loba as interconnected archetypal configurations that illuminate how outdoor and environmental learning can engage orientation, ecological loss, and restorative ethical action within place-based contexts. Rather than interpreting these narratives as metaphors to be decoded, the analysis adopts an archetypal–ecopsychological perspective that treats each story as a patterned mode of experience organizing perception, emotion, and action in relation to the more-than-human world (Jung, 1968; Estés, 1992).

The analytical strategy is comparative and integrative. Each narrative is examined in relation to (a) the type of outdoor encounter it foregrounds, (b) the dominant ecological emotions it engages, (c) the dimension of ecological literacy it supports, and (d) its pedagogical implications for outdoor and environmental education. Taken together, the three narratives articulate an *archetypal ecology of learning* that moves from attunement and orientation, through confrontation with loss and mortality, toward restorative engagement and ethical responsibility in damaged or changing places (Orr, 1992; Wattchow & Brown, 2011).

To clarify this framework, Table 1 summarizes the core analytical dimensions guiding the interpretation.

Table 1: Archetypal Narratives and Analytical Dimensions in Outdoor and Environmental Education

Archetypal Narrative	Core Outdoor Encounter	Dominant Ecological Emotions	Ecological Literacy Dimension	Pedagogical Implications for Outdoor Education
Vasalisa the Wise	Navigating forested, uncertain environments	Attentiveness, curiosity, trust, mild anxiety	Orientation, relational awareness, sensory attunement	Cultivating embodied attention, intuitive decision-making, and place-based orientation (Priest, 1986; Nisbet et al., 2009)
Skeleton Woman	Encountering decay, death, and damaged ecosystems	Ecological grief, discomfort, vulnerability	Systems thinking, acceptance of cyclical change	Holding discomfort, legitimizing loss, reflective dialogue on degradation and mortality (Cunsolo & Ellis, 2018; Capra, 1996)
La Loba	Engagement with degraded or desolate landscapes	Care, responsibility, cautious hope	Restorative action, ethical responsibility	Place-based restoration, stewardship, and relational action grounded in care (Bowers, 2002; Gruenewald, 2003)

Note. The table synthesizes archetypal motifs with educational constructs drawn from outdoor education, ecopsychology, and ecological literacy literature (Jung, 1968; Orr, 1992).

As summarized in Table 1, the three narratives are not treated as isolated stories but as complementary analytical lenses that illuminate different dimensions of outdoor and environmental learning. *Vasalisa the Wise* foregrounds the *initial conditions* of learning outdoors: entering environments marked by uncertainty with attentiveness, curiosity, and trust in embodied perception. Research in outdoor education emphasizes that such orientation skills are foundational for meaningful engagement, as learners must respond to dynamic ecological and social cues rather than relying solely on predetermined instructions (Priest, 1986; Wattchow & Brown, 2011). From a human–nature relations perspective, this attunement supports the development of nature relatedness through sensory and affective engagement with place (Nisbet et al., 2009).

Skeleton Woman, by contrast, centers on encounters with loss, decay, and mortality—experiences that frequently arise in outdoor learning contexts but are often pedagogically marginalized. As shown in Table 1, the dominant emotions associated with this narrative include ecological grief and vulnerability. Ecological grief research suggests that such emotions signal meaningful relationships with place and should be engaged rather than suppressed in environmental learning (Cunsolo & Ellis, 2018). Systems-

oriented ecological literacy similarly emphasizes that loss and regeneration are inseparable processes within living systems (Capra, 1996). Interpreted together, Skeleton Woman provides an archetypal framework for legitimizing discomfort and fostering reflective dialogue about degradation, rather than promoting avoidance or premature optimism (Ojala, 2016; Pihkala, 2020).

La Loba completes the analytical triad by foregrounding restorative ethical action. As indicated in Table 1, La Loba shifts the focus from recognition of loss toward relational engagement grounded in care, patience, and responsibility. This aligns with ecojustice-oriented education, which frames environmental action as ethical and cultural work situated within specific places, rather than as abstract problem-solving (Bowers, 2002; Martusewicz et al., 2015). In outdoor education, such action may take the form of place-based restoration projects, stewardship practices, or community-engaged learning that connects reflection on loss with modest, context-sensitive forms of repair (Gruenewald, 2003; Verlie, 2019).

Read together, the three narratives articulate an archetypal ecology of learning that supports holistic ecological literacy by integrating perception, emotion, identity, and ethics within place-based education (Orr, 1992; McBride et al., 2013). Learners may move among these modes—orientation, confrontation with loss, and restoration—nonlinearly across different outdoor contexts and life stages. The analytical framework thus offers outdoor educators a conceptual tool for designing learning experiences that acknowledge emotional complexity while fostering ethical engagement grounded in relationship rather than control.

Discussion

This study set out to examine how archetypal narratives—Vasalisa the Wise, Skeleton Woman, and La Loba—can function as conceptual resources for outdoor and environmental education by engaging ecological emotions, place-based learning, and ethical responsibility. Building on the analytical framework and Table 1, the discussion clarifies the study's contributions to environmental education research, ecoliteracy scholarship, and outdoor pedagogy, and situates these contributions within the broader literature.

Advancing Environmental Education: From Knowledge Transmission to Relational Meaning-Making

A central contribution of this study lies in its response to long-standing critiques within environmental education regarding the limits of knowledge-based and behaviorist models. Research has repeatedly shown that increased environmental knowledge does not automatically translate into sustained ethical action (McBride et al., 2013). This "knowledge–action gap" has prompted calls for pedagogies that address emotional, relational, and ethical dimensions of learning (Russell & Oakley, 2016; Ojala, 2016).

By integrating archetypal narratives into outdoor and environmental education, this study advances a relational model of learning in which meaning-making precedes action. The three narratives collectively

articulate how learners may *enter* outdoor environments (Vasalisa), *remain present* with ecological loss and uncertainty (Skeleton Woman), and *respond* through restorative engagement (La Loba). This progression reframes environmental learning not as the accumulation of facts, but as a process of relational attunement, emotional integration, and ethical orientation grounded in place (Wattchow & Brown, 2011).

Importantly, this contribution does not position storytelling as a substitute for scientific knowledge. Rather, narratives are understood as structures that help learners interpret and live with scientific realities—particularly those involving loss, risk, and irreversibility—without retreating into denial or paralysis (Dahlstrom, 2014; Pihkala, 2020). In this sense, the study contributes to environmental education by offering a conceptual bridge between ecological knowledge and lived experience.

Reframing Ecoliteracy: Integrating Emotion, Identity, and Ethics

The findings also extend ecoliteracy scholarship by proposing an explicitly affective and archetypal dimension to holistic ecological literacy. While foundational ecoliteracy frameworks emphasize systems thinking, interdependence, and sustainability (Orr, 1992; Capra, 1996), critics have noted that ecoliteracy is often operationalized in ways that privilege cognition over emotion and identity (McBride et al., 2013).

This study responds to that critique by demonstrating how ecoliteracy can be conceptualized as an ecology of learning that integrates perception, emotion, identity, and ethics. Vasalisa supports the development of attentiveness and orientation within complex systems; Skeleton Woman legitimizes ecological grief and acknowledges loss as an intrinsic aspect of living systems; and La Loba foregrounds ethical responsibility and restorative action. Together, these narratives offer a way of understanding ecoliteracy not merely as the ability to “read” ecological systems, but as the capacity to *remain in relationship* with those systems under conditions of degradation and uncertainty.

By explicitly engaging ecological grief and eco-anxiety—phenomena increasingly documented in environmental education research (Cunsolo & Ellis, 2018; Pihkala, 2020)—the framework extends ecoliteracy beyond rational comprehension toward emotional resilience and moral imagination. This addresses a critical gap in the literature, where emotional responses to ecological crisis are often treated as barriers to learning rather than as integral components of ecological understanding (Ojala, 2016).

Contributions to Outdoor and Place-Based Pedagogy

Within outdoor education, this study contributes a theoretically grounded approach for working with emotional complexity in place-based learning. Outdoor education literature has long emphasized embodied, experiential learning and the pedagogical significance of place (Priest, 1986; Wattchow & Brown, 2011). However, comparatively little work has examined how educators might intentionally engage emotions such as grief, fear, or vulnerability that arise in outdoor encounters with damaged or changing environments (Verlie, 2019).

The archetypal framework proposed here offers outdoor educators a conceptual tool for designing learning experiences that neither avoid nor instrumentalize such emotions. For example, Vasalisa's emphasis on attentiveness aligns with pedagogies that cultivate sensory awareness and relational presence in outdoor settings. Skeleton Woman legitimizes encounters with ecological loss, supporting reflective practices that allow learners to stay with discomfort rather than seeking immediate resolution. La Loba, in turn, frames restorative action as a relational and ethical practice rooted in care, patience, and humility, resonating with place-based restoration and stewardship initiatives (Gruenewald, 2003; Bowers, 2002).

In this way, the study advances outdoor education by articulating how emotional engagement can be pedagogically structured without reducing outdoor learning to therapy or moral prescription. The framework supports educational—not therapeutic—practice by situating emotional experiences within collective meaning-making and ethical responsibility.

Ecojustice and Ethical Orientation in Environmental Learning

Another significant contribution lies in linking archetypal narratives to ecojustice-oriented education. Ecojustice scholars have argued that environmental education must move beyond individual behavior change to address cultural assumptions, power relations, and ethical responsibilities embedded in human–nature relationships (Bowers, 2002; Martusewicz et al., 2015). The La Loba narrative, in particular, foregrounds ethical action as care for what remains, rather than as mastery or technological solutionism.

This orientation challenges dominant epistemologies that frame environmental problems as technical issues to be solved, often obscuring histories of exploitation and unequal vulnerability. By situating restoration within narrative and relational contexts, the framework aligns with calls for culturally responsive, place-conscious pedagogies that recognize the social and ecological dimensions of environmental harm (Gruenewald, 2003).

The study thus contributes to ecojustice discourse by offering a narrative-based, archetypal lens through which ethical responsibility can be explored in outdoor learning contexts, particularly those involving degraded or marginalized places.

Theoretical Contribution and Advancement of the Literature

The primary theoretical contribution of this study is the articulation of an *archetypal ecology of learning* for outdoor and environmental education. This concept advances the literature in three key ways. First, it integrates disparate strands of research—ecoliteracy, ecopsychology, outdoor education, and ecojustice—into a coherent framework that foregrounds relational and emotional dimensions of learning. Second, it reframes archetypal narratives as legitimate conceptual tools for environmental education research, rather than as illustrative or metaphorical additions. Third, it responds to emerging scholarship on ecological emotions by offering a structured way to engage grief and anxiety within educational practice.

By doing so, the study contributes to ongoing efforts to rethink environmental education in the context of accelerating ecological crises. It suggests that fostering ecological responsibility requires not only knowledge and skills, but also pedagogical spaces in which learners can orient themselves, confront loss, and imagine restorative action in relation to specific places. While earlier work has examined ecological literacy, nature relatedness, and ecojustice in teacher education contexts (Ozgun, 2018; Ozgun & Özgün, 2019; Ozgun, 2025), the present study extends this line of inquiry by foregrounding archetypal narratives as pedagogical mediators of ecological emotion, loss, and restorative action in outdoor learning.

Implications for Outdoor and Environmental Educators

The archetypal framework developed in this study offers several pedagogical implications for outdoor and environmental educators seeking to design learning experiences that engage ecological emotions, place-based learning, and ethical responsibility. Rather than prescribing specific activities, the following implications illustrate how educators *may* draw on the three archetypal narratives—Vasalisa the Wise, Skeleton Woman, and La Loba—to structure outdoor learning contexts that are responsive to emotional complexity and grounded in place.

Vasalisa the Wise: Attunement, Orientation, and Embodied Presence

The Vasalisa narrative highlights the importance of attentiveness, intuition, and orientation in uncertain environments. In outdoor education, this suggests that educators could prioritize pedagogical practices that cultivate embodied attention and relational presence before introducing problem-solving or action-oriented tasks. For example, sensory walks, sit-spot practices, or slow observation activities may support learners in attuning to environmental cues such as sound, texture, movement, and atmosphere (Wattchow & Brown, 2011). Reflective prompts that invite learners to notice moments of uncertainty, hesitation, or curiosity may further support orientation without framing uncertainty as failure (Priest, 1986).

Such practices align with research on nature relatedness, which emphasizes affective and experiential engagement with nature as foundational for environmental learning (Nisbet et al., 2009). By foregrounding orientation and attentiveness, educators may help learners develop the relational capacities necessary for engaging more challenging ecological content later in the learning process.

Skeleton Woman: Engaging Ecological Loss and Reflective Dialogue

Skeleton Woman foregrounds encounters with loss, decay, and mortality—experiences that are often present in outdoor learning contexts but pedagogically under-addressed. The analysis suggests that educators may intentionally create reflective spaces that allow learners to acknowledge ecological loss without immediately moving toward solution-focused action. For instance, guided dialogue protocols at

visibly damaged or degraded sites could invite learners to share observations, emotions, and questions related to loss, change, or vulnerability (Cunsolo & Ellis, 2018).

Such reflective practices may include journaling, facilitated group dialogue, or storytelling circles that support meaning-making while maintaining clear educational boundaries (Ojala, 2016). Rather than aiming to resolve grief or discomfort, these practices acknowledge ecological emotions as legitimate responses to meaningful relationships with place (Pihkala, 2020). In doing so, outdoor education may foster emotional literacy and systems thinking by situating loss within broader ecological cycles of change and regeneration (Capra, 1996).

La Loba: Restorative Action and Ethical Engagement with Place

La Loba emphasizes restorative engagement grounded in care, patience, and responsibility. In outdoor and environmental education, this suggests that educators may link reflection on ecological loss with modest, place-responsive forms of restorative action. Such actions could include habitat stewardship projects, species monitoring, site care, or community-engaged initiatives developed in collaboration with local organizations (Gruenewald, 2003; Bowers, 2002).

Importantly, these actions are not framed as solutions to complex environmental problems, but as ethical responses that maintain relationship with damaged places. By emphasizing care over control, La Loba-oriented practices may help learners navigate epistemological barriers to action such as perceived inefficacy or emotional overwhelm (Gifford, 2011). This approach aligns with ecojustice-oriented education, which situates environmental action within cultural, ethical, and relational contexts rather than individual behavior change alone (Martusewicz et al., 2015).

Integrating the Three Narratives in Educational Practice

Taken together, the three narratives offer outdoor educators a flexible framework for sequencing or revisiting learning experiences that move between orientation, engagement with loss, and restorative action. Educators may draw on these archetypal processes nonlinearly, depending on learners' prior experiences, the characteristics of specific places, and the educational context. By integrating attentiveness, reflective dialogue, and ethical engagement, outdoor and environmental education may better support learners in developing holistic ecological literacy that includes emotional awareness, environmental identity, and responsibility for place (Orr, 1992; McBride et al., 2013).

Conclusion

This conceptual paper examined how three archetypal narratives—**Vasalisa the Wise**, **Skeleton Woman**, and **La Loba**—can inform outdoor and environmental education by offering a coherent framework for engaging ecological emotions, place-based learning, and ethical responsibility. Drawing on Jungian archetypal theory, ecopsychology, holistic ecological literacy, and ecojustice-oriented education, the

study proposed an **archetypal ecology of learning** that integrates orientation and attunement, encounter with ecological loss, and restorative action within specific places.

The analysis demonstrated that environmental learning in the context of ecological crisis cannot be adequately addressed through cognitive knowledge acquisition alone. Learners increasingly encounter uncertainty, loss, and responsibility in outdoor settings, and these experiences are lived through emotions, bodies, and relationships with place. By bringing together Vasalisa, Skeleton Woman, and La Loba as interconnected archetypal processes, this study offers a way of understanding how outdoor education can support learners in remaining present with emotional complexity while sustaining ethical engagement rather than avoidance, paralysis, or denial.

In relation to *environmental education*, the study contributes a relational and meaning-centered perspective that responds directly to critiques of the knowledge–action gap. The archetypal framework clarifies how learning may move from attentiveness and orientation, through recognition of ecological loss, toward restorative engagement grounded in care for place. In doing so, it offers conceptual resources for educators seeking to connect environmental knowledge with lived experience without reducing learning to therapeutic intervention or instrumental behavior change.

In relation to *ecoliteracy*, the study extends existing frameworks by foregrounding emotional integration, environmental identity, and ethical responsibility as constitutive dimensions of ecological understanding. Ecoliteracy is reframed not only as the capacity to understand ecological systems, but as the ability to remain in relationship with those systems under conditions of degradation, uncertainty, and change. By explicitly engaging ecological grief and eco-anxiety, the framework advances ecoliteracy scholarship beyond predominantly cognitive models toward a more holistic and resilient conception of ecological learning.

Within *outdoor and place-based education*, the findings highlight the pedagogical value of working intentionally with emotional encounters that arise in damaged or changing environments. The archetypal ecology of learning provides educators with a conceptual tool for designing place-responsive learning experiences that cultivate attentiveness, legitimize encounters with loss, and connect reflection to modest, ethical forms of restorative action. By situating these processes within ecojustice perspectives, the study also emphasizes that environmental learning is inseparable from questions of responsibility, care, and relationship to place.

As a conceptual contribution, this study does not claim empirical generalizability. Rather, it offers a *heuristic and generative framework* for outdoor and environmental educators and researchers. Future empirical research may explore how archetypal narratives function in diverse outdoor learning contexts, including teacher education, youth programs, and community-based initiatives, and how learners make meaning of ecological emotions through narrative, reflection, and action. In a time of accelerating ecological disruption, environmental education requires pedagogical frameworks capable of holding loss, cultivating relationship, and fostering ethical imagination. The archetypal ecology of learning articulated in this study offers one such pathway.

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Author Contribution

B.B.O. conceived the study, developed the conceptual framework, conducted the theoretical analysis, and wrote the manuscript. B.B.O. also revised the manuscript critically for intellectual content and approved the final version for submission.

References

1. Abram, D. (1996). *The spell of the sensuous: Perception and language in a more-than-human world*. Pantheon Books.
2. Bowers, C. A. (2002). Toward an eco-justice pedagogy. *Environmental Education Research, 8*(1), 21–34. https://doi.org/10.1080/13504620120109628
3. Bruner, J. (1991). The narrative construction of reality. *Critical Inquiry, 18*(1), 1–21. https://doi.org/10.1086/448619
4. Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. Anchor Books.
5. Clayton, S. (2003). Environmental identity: A conceptual and an operational definition. In S. Clayton & S. Opotow (Eds.), *Identity and the natural environment: The psychological significance of nature* (pp. 45–65). MIT Press.
6. Cunsolo, A., & Ellis, N. R. (2018). Ecological grief as a mental health response to climate change-related loss. *Nature Climate Change, 8*(4), 275–281. https://doi.org/10.1038/s41558-018-0092-2
7. Dahlstrom, M. F. (2014). Using narratives and storytelling to communicate science with nonexpert audiences. *Proceedings of the National Academy of Sciences, 111*(Supplement 4), 13614–13620. https://doi.org/10.1073/pnas.1320645111
8. Estés, C. P. (1992). *Women who run with the wolves: Myths and stories of the Wild Woman archetype*. Ballantine Books.
9. Gifford, R. (2011). The dragons of inaction: Psychological barriers that limit climate change mitigation and adaptation. *American Psychologist, 66*(4), 290–302. https://doi.org/10.1037/a0023566
10. Gruenewald, D. A. (2003). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal, 40*(3), 619–654. https://doi.org/10.3102/00028312040003619
11. Jung, C. G. (1968). *The archetypes and the collective unconscious* (2nd ed., R. F. C. Hull, Trans.; Vol. 9, Part 1). Princeton University Press.

12. Martusewicz, R. A., Edmundson, J., & Lupinacci, J. (2015). *EcoJustice education: Toward diverse, democratic, and sustainable communities* (2nd ed.). Routledge.
13. McBride, B. B., Brewer, C. A., Berkowitz, A. R., & Borrie, W. T. (2013). Environmental literacy, ecological literacy, ecoliteracy: What do we mean and how did we get here? *Ecosphere, 4*(5), Article 67. https://doi.org/10.1890/ES13-00075.1
14. Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education, 1997*(74), 5–12. https://doi.org/10.1002/ace.7401
15. Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The nature relatedness scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment and Behavior, 41*(5), 715–740. https://doi.org/10.1177/0013916508318748
16. Nisbet, E. K., & Zelenski, J. M. (2013). The NR-6: A new brief measure of nature relatedness. *Frontiers in Psychology, 4*, 813. https://doi.org/10.3389/fpsyg.2013.00813
17. Ojala, M. (2016). Facing anxiety in climate change education: From therapeutic practice to hopeful transgressive learning. *Canadian Journal of Environmental Education, 21*, 41–56.
18. Orr, D. W. (1992). *Ecological literacy: Education and the transition to a postmodern world*. State University of New York Press.
19. Ozgun, B. B. (2018). *Ogretmen adaylarinin eko-okuryazarlik duzeylerinin incelenmesi* (Doctoral dissertation). Inonu University, Turkey.
20. Ozgun, B. B. (2025). *Ecojustice in pre-service teacher education: A thematic literature analysis*. **Canadian Journal for New Scholars in Education, 16**(2), 142–156.
21. Ozgun, B. B., & Ozgun, V. (2019). *Importance of nature relatedness: The case of class and preschool pre-service teachers*. **Karaelmas Journal of Educational Sciences, 7**, 37–56.
22. Pihkala, P. (2020). Eco-anxiety and environmental education. *Sustainability, 12*(23), 10149. https://doi.org/10.3390/su122310149
23. Priest, S. (1986). Redefining outdoor education: A matter of many relationships. *The Journal of Environmental Education, 17*(3), 13–15. https://doi.org/10.1080/00958964.1986.9941413
24. Roszak, T. (1992). *The voice of the earth: An exploration of ecopsychology*. Phanes Press.
25. Sterling, S. (2001). *Sustainable education: Re-visioning learning and change*. Schumacher Society.
26. Verlie, B. (2019). Bearing worlds: Learning to live-with climate change. *Environmental Education Research, 25*(5), 751–766. https://doi.org/10.1080/13504622.2019.1637823
27. Wattchow, B., & Brown, M. (2011). *A pedagogy of place: Outdoor education for a changing world*. Monash University Publishing.