



DISCOVERING NEARBY NATURE AND URBAN ADVENTURES:
WHERE WE LIVE & LEARNING OUTSIDE

Abstract Book

Edited by

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& Alessandro Bortolotti

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Introduction

It is a real pleasure to present the proceedings of an intense and creative event such as the 21st EOE Network Conference. The EOE Network (European Institute for Outdoor Adventure Education and Experiential Learning) is a European community that brings together professionals, educators, and researchers engaged in outdoor, experiential, and adventure-based education. Over the years, it has become a stable and vital context where ideas, practices, and research are continuously shared, questioned, and further developed across countries. We were delighted to host the participants and co-create a welcoming atmosphere that allowed all participants to feel at home, within the network and in the city of Rimini. However, the true stars of this event are the participants. EOE conferences bring together university lecturers, researchers, youth workers, teachers from kindergarten to upper secondary school, environmental and outdoor educators, and pedagogues from across Europe and beyond. During the 2025 conference, held in Rimini between 14 and 17 April, the “EOE family” consisted of about 180 participants, who shared their outdoor teaching and learning experiences through 22 poster presentations, 18 outdoor workshops, 45 oral presentations, 3 keynote speeches, and 1 research workshop. We believe that participation and the sense of community that animates the EOE Network are the most valuable aspects to highlight in this brief introduction. As educators and researchers, it is often a challenge to meet people who, despite their diversity, can share ideals, working methods, experiences, and critical reflections in a friendly environment. This is certainly the case with the EOE conferences. The high scientific level of the contributions, clearly demonstrated by the texts collected here, is inseparable from an atmosphere that fosters mutual support, professional generosity, and the creation of further professional and human connections. In this sense, the EOE Network can be understood as a transnational community of practice: a living context in which participants regularly meet, develop a shared language, test and refine tools, and collectively construct knowledge that is immediately relevant for both educational practice and academic research in outdoor education. In this spirit, a participatory workshop entitled “New Path in OE Research” was offered during the conference for PhD students and young researchers. This educational and exchange opportunity, born from the collaboration with the PhD Student School-based Outdoor Learning and Teaching Network, allowed over twenty young researchers to connect and engage in dialogue, effectively opening valuable spaces for inquiry and collaboration. This sense of community, which truly represents a core element of the EOE Network, reflects what Putnam defines as social capital: a shared resource that strengthens trust, cooperation, and collective engagement. Within the EOE context, this social capital becomes a fundamental condition for the development of robust professional identities, in schools, in youth work, in community projects, and in academia, and for building bridges between research and practice that can respond to the challenges of contemporary times. Our world is undergoing significant changes: climate change, forced global migration, unsettling neoliberal policies, rising wealth inequality, and rapid technological advancements, among other factors, have become central to contemporary life. These challenges call for a rethinking of our history, heritage, and established practices to promote more sustainable, innovative, and equitable ways of living and learning. The EOE Network and its conferences are one of the concrete spaces where this rethinking is collectively explored, discussed, and transformed into new practices and research agendas. Collaboration, dialogue, and the opening of international connections are essential for developing high-quality research and educational programs, as well as for creating tangible impacts on communities, children, adolescents, and adults alike. This conference seeks to foster awareness and broaden perspectives, encouraging discussions on approaches and methodologies, and promoting a critical view of research and practice in outdoor education. Moreover, responsible and sustainable development in education requires creative

strategies for outdoor learning that align with key Sustainable Development Goals: quality education (SDG 4), good health and well-being (SDG 3), and reduced inequalities (SDG 10). It is crucial to consider these goals when planning our educational initiatives, especially in light of the fact that in Europe approximately 74% of the population lives in urban areas (United Nations, 2023). Urban contexts, with their social, cultural, and environmental complexities, are not marginal but central spaces for reimagining outdoor education. In Rimini, people have engaged in both indoor and outdoor learning for over 2,500 years. Our conference leveraged both the historical Roman city and the vibrant modern center, as well as the urban and coastal spaces of the Adriatic. For these reasons, it was decided to dedicate the conference to educational opportunities connected to urban environments, and, more broadly, to places that are significant in the natural and cultural landscape. For many years now, the community of educators and researchers involved in outdoor education has been aware that it is not only hikes and extreme experiences that matter, but every encounter with places and nature—especially when these encounters happen close to home. This awareness, often distant from mainstream narratives, is more sustainable, more inclusive, and deeply connected to everyday life. The Rimini conference was also the first international conference dedicated to outdoor education to be hosted in Italy, and this is a significant aspect we would like to emphasize. The tradition of research in this field has often been associated with other cultural and geographical contexts in Europe and beyond. Looking at the locations of the previous 20 conferences, it becomes evident that the Mediterranean area was still missing. It was therefore an honour and a powerful stimulus to host this meeting in a nation that has contributed so much to pedagogical theories and practices, while still having much to learn and to recognize in terms of outdoor education. Exploring the voices, experiences, and questions emerging from Southern and Mediterranean contexts represents both an opportunity and a challenge for the EOE family as a whole. The contributions that make up this volume offer an image of the richness of the intellectual, professional, and human exchanges that took place during the conference. We hope that reading them will inspire new insights, new perspectives, and new networks, and will further strengthen this unique context where research and practice in outdoor education grow together.

Elena Diana & Tommaso Reato
The EOE Conference Team ¹

¹ We wish to thank all the individuals and institutions that promoted and supported the conference and this publication. First and foremost, our gratitude goes to the EOE Board, represented by its President, Tomas Aylward. We also extend our sincere thanks to the Italian Scientific and Organising Committee, coordinated by Prof. Alessandro Bortolotti and composed of the remaining members Ginevra De Amicis, Elena Diana, Tommaso Reato, Mariagrazia Squadrani. Finally, we gratefully acknowledge the University of Bologna, Alma Mater Studiorum and the Ippogrifo Association of Rimini.

Book of Abstract

The perception of psychological well-being in guests and volunteers at the Beach of Values: A project for the inclusion and care of people with severe disabilities

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Introduction

Research in the last years has put in evidence the role played by natural spaces regarding human health. Indeed, several empirical evidences suggest that the relationship with green and blue spaces is beneficial for improving people's health and well-being, both physical and mental ones (WHO, 2021; Wang et al., 2025).

Particularly, psychological well-being has received a lot of interest in this field of research and it can be defined as a multifaceted and multidimensional construct including key components, such as positive affect, mental balance, emotional regulation, positive relationships, purpose in life, life satisfaction and personal growth (e.g. edonic and heudaimonic well-being) (Gremigni & Gorini, 2022).

Considering the case of blue spaces, however, they have been less investigated compared to green ones, even if some studies agree in recognizing their positive effects on psychological well-being (Bolognesi et al., 2023; Britton et al., 2020; White et al., 2020).

In order to better explore the positive influence of blue spaces on mental well-being, an exploratory study was carried out aimed at investigating perceived psychological well-being by users of a specific seaside context, dedicated to people with severe disabilities and their families. Based on the project *The Beach of Values* developed by Insieme a Te Association (see Debora Donati's abstract), we recognized this place as a unique context to promote well-being and restoration in people with severe disabilities, characterized by dedicated both professional and voluntary support, inclusion and free access to guests and their caregivers.

Method

The exploratory study was characterized by a mixed-method and repeated measure design.

Recruitment of participants took place in August-September 2024 at *The Beach of Values* (located in Punta Marina Terme, near Ravenna, Italy); a psychologist contacted eligible participants, explaining the aim of the research and asked the consent to participate. In case of acceptance, consent form was signed. We included as participants all the persons attending the beach (guests, caregivers, and volunteers) based on the following inclusion criteria: the absence of cognitive disabilities (to allow the filling in of questionnaires), age > 13 years, and a stay at the beach of at least one week.

The research design included 3 different times of administration (T1, T2, T3), corresponding to first, third and last day of the week. At T1 and T3 steps, the level of psychological well-being was evaluated. At T2, the psychological perception of the environment was assessed: we chose to measure this variable once, in order to gather informed perceptions of the users regarding the place, not being completely unfamiliar with it, but not about to leave either, as these conditions could have influenced the responses.

All participants fulfilled a battery of validated questionnaires, composed by four sections. The first section collected sociodemographic data (e.g. gender, age, educational level) and information on the disabilities (guests only).

The second section explored the psychological well-being by the following validated questionnaires:

- *Positive and Negative Affect Schedule* (PANAS; Watson et al., 1988; Terracciano et al., 2003): it consists of 20 items that detect the presence of positive (PANAS+ subscale) and negative (PANAS- subscale) emotions.
- *Rapid Stress Assessment Scale* (RSA; Tarsitani & Biondi, 1999): it assesses the subjective perception of stress through 15 items.
- *World Health Organization-5 Well-being Questionnaire* (WHO-5; World Health Organization, 1998; Topp et al., 2015<https://www.psykiatri-regionh.dk/who-5/who-5-questionnaires/Pages/default.aspx>): a 5-item measure for assessing subjective well-being perceived in the last two weeks.

The third section assessed the psychological perception of the space and included:

- *Perceived Affective Qualities Scale* (PAQs; Russell et al., 1981): this questionnaire is based on the circumflex model of affective quality attributed to environment examined (in this case the beach). This measure consists of 48 adjectives, divided into 8 domains (each one consisting of 6 items), creating 4 bipolar dimensions: relaxing–distressing, exciting–gloomy, pleasant–unpleasant, and arousing–sleepy.
- *Perceived Restorativeness Scale* (PRS; Korpela e Hartig, 1996; Pasini e Berto, 2007): it includes 29 items measuring the perception of restorativeness that participants experienced at the Beach of Values. Three scales have been considered: “being away”, “fascination” and “legibility”.

A fourth section was represented by *ad hoc* open questions exploring the personal experiences (e.g. first time at the beach, the people they came with, the hours spent there each day, satisfaction with the assistance, staff, and accessibility of the beach, and a space for free comments regarding impressions, ideas, or suggestions related to the beach).

Data were analyzed using SPSS for Windows version 22.0 (IBM, Armonk, NY, USA). A p value < 0.05 was considered statistically significant. For descriptive purposes, we calculated percentages and means (standard deviations) to describe the sociodemographic characteristics of the sample. A multilevel repeated measures ANOVA was used to compared level of psychological well-being (PANAS+, PANAS-, RSA and WHO-5 scores) according to the time of assessment (T1 vs T3), and the effect of the interaction between group (caregivers, guests, volunteers) and time of assessment. Moreover, potential differences among groups on psychological perception of the space was explored by a Univariate Analyses of Variance (ANOVA). The responses to open-ended questions were qualitatively analyzed through the following steps: identifying recurring keywords in the participants' responses over the different weeks, and organizing the responses into categories that best summarized the participants' thoughts.

Results

A sample of 232 participants was recruited, specifically: 75 caregivers, 30 guests, and 127 volunteers. The disabilities of guests included: SMA type 1, SMA type 2, hemiplegia, Parkinson's disease, Amyotrophic lateral sclerosis, multiple sclerosis.

Main socio-demographic characteristics were collected for participants: mean age (Caregivers= 53.7±15.6), Guests= 52.8±17.9, Volunteers= 25.8±5.6 years), % female (Caregivers=70.7, Guests=50, Volunteers= 59.8), % university degree (Caregivers=24, Guests=16.7, Volunteers= 17.3).

Results globally showed a significant improvement on psychological well-being. Specifically, negative emotional states significantly decreased from T1 to T3 (PANAS- mean scores: T1= 17.6, T3= 14.8; $p=0.005$). Despite this decrease was observed in all groups (Caregiver: T1=18.0, T3= 12.8; Guests: T1=16.3, T3= 15.3; Volunteers: T1=18.2, T3= 16.2, respectively), the effect of interaction between group and time of assessment was not significant ($p=0.121$).

Analyses showed also that the level of well-being significantly improved in all participants (WHO-5 mean scores: T1= 13.5, T3= 15.2; $p=0.005$). The scores increased in all groups (Caregiver: T1= 49.5, T3= 57.8; Guests: T1=58.0, T3= 65.2; Volunteers: T1=55.0, T3= 59.2, respectively), even if these differences were not statistically significant ($p=0.073$).

Conversely, positive emotional states remained stable and high (PANAS+ mean scores: T1= 33.3, T3= 34.3) and the level of stress did not change across time, remaining low to moderate (RSA mean scores: T1=13.1, T3=12.8). The effect of the interaction between group and time of assessment was not statistically significant.

Globally, all users showed a high affective perception of positive qualities of the beach and a low perception of negative ones, based on PAQs scores. Caregivers' mean scores significantly differed from those of volunteers in most of the scales: Relaxing (Caregivers=27.2; Guests= 24.8, Volunteers= 19.2; $p=0.005$), Exciting (Caregivers= 28.6; Guests= 26.9, Volunteers= 25.7; $p=0.013$), Pleasant (Caregivers= 32.8; Guests= 29.7, Volunteers= 28.0; $p=0.005$), Distressing (Caregivers= 4.1; Guests= 6.1, Volunteers= 11.3; $p=0.005$), Gloomy (Caregivers= 2.6; Guests= 3.7, Volunteers= 5.1; $p=0.003$), and Unpleasant (Caregivers= 1.63; Guests= 3.1, Volunteers= 6.1, $p=0.005$). For all scores, caregivers showed the highest (for positive qualities) and lower scores (for negative) compared to volunteers (Bonferroni's post hoc $p<0.05$). No significant differences emerged in other scales.

All the users showed a high degree of restorativeness as measured by PRS. Among them, the differences were statistically different in «Being away» ($p=0.005$) and «Fascination» scales ($p=0.009$), as caregivers showed the highest scores, in «Being away» ($p<0.0005$) compared to volunteers (Caregivers= 7.7; Volunteers= 7.1) and «Fascination» scales ($p=0.016$) compared to guests (Caregivers= 7.4; Guests= 6.58).

The qualitative analyses showed the main themes underpinned in the answers. For the volunteers, they expressed the importance of dedicating their time, listening to people, and being present and attentive to the other person ("I chose to come here to bring a smile to people less fortunate than me", "I believe that everyone needs importance, especially those who are fragile and, for this reason, are excluded from society"). They also underlined how they learned to be empathetic and non-judgmental ("Welcoming means for me accepting everything that is part of a person"), in order to make guests and caregivers feel at ease, giving themselves the possibility to change their point of view, modifying their perspective ("Looking at the person beyond his condition, at every level", "It means openness, absence of prejudice and ability to see the world", "It is a way to help others that helps me to draw many considerations about life", "It is a mental and physical commitment that allows you to have an impact on someone's life").

For both caregivers and guests, a relevant theme regarded the quality of the staff and the services. Indeed, the participants declared to feel welcomed related both to the people who provided support

on the beach, such as volunteers, OSS, and ODV staff, and to the design and organization of the spaces. In particular, caregivers appreciated qualities such as discretion, availability, kindness, promptness to help without being asked, sensitivity, and cheerfulness. Regarding the services, guests and caregivers appreciated its inclusiveness, thanks to the design of spaces accessible to all and the provision of all the necessary equipment to facilitate a beach holiday (“The fact that everything is wheelchair accessible allows me to enjoy the beach and the sea with my partner, without having to worry about being able to do normal things for me”).

Discussion

The findings suggest that the stay at the beach is associated to a global improvement of well-being in all participants, independently of health condition and role; also, to a positive perception of the place and a high sense of restoration, especially experienced by caregivers.

The results highlight the joint value of two main elements: the specialized characteristics of the beach, which allow people with various disability conditions and their families to reclaim moments of pleasure, feel supported and experience significant social interactions thanks to the presence of volunteers and operators; the restorative effect that natural blue spaces may elicit (WHO, 2021). Taken together, these elements contribute to improving psychological well-being, even in case of severe disabilities. It might also alleviate the negative consequences of psychophysiological stress on the whole family system.

We aim to further confirm these results with larger samples, possibly considering the role of duration of exposure and including psychophysiological measures.

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Teachers' perceived wellbeing in a school center 0-10 based on outdoor education/learning.

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Introduction

Outdoor Education, known as a pedagogic approach based on experiential learning and active engagement with the environment, has received increasing attention in recent years for evidence of its positive effects on children's development (Monti et al., 2017; Agostini et al., 2018; Becker et al., 2017; Roberts et al., 2019). However, scientific literature has paid less attention to the potential impact of this approach on teachers' wellbeing working in schools, despite the recognition of their central role for the quality of interactions with children and overall school climate (McCallum et al., 2016).

Aims of the study. A cross-sectional study was developed, with the general aim to investigate teachers' psychological dimensions of well-being in association to OE daily activities, by analyzing stress levels, perceptions of the outdoor environment at work, and the implications for classroom management and interactions with children. These objectives are based on empirical evidence showing the positive effects of outdoor education on teachers' well-being, their teaching approach, and the quality of their relationships with children and colleagues (Deschamps et al., 2022; Meijer, 2023; Smedsrud, 2023). Based on these studies, we hypothesized that the outdoor educational context could contribute to a decrease in perceived stress, promoting psychological well-being, and increasing professional satisfaction. In this regard, Barker and colleagues (2024) highlight that teachers working in schools following outdoor education approach tend to show improved emotional balance, greater psycho-physical resilience, and enhanced professional expertise.

Method

The research employed a mixed-methods approach to explore the experiences of teachers and educators within the 0–10 School Center placed in Fratta Terme (FC), which, since 2022 has implemented educational activities grounded in outdoor education and learning.

Sample. The sample consisted of 17 female teachers and educators. Participants included 7 nursery school educators, 8 preschool teachers, and 3 primary school teachers. Mean age was 40.5 years (SD = 12.3), and years of service were distributed evenly across different ranges: 41% had 0–10 years of experience, 41% had 11–20 years, and 18% had more than 21 years of work. Of the total, 53% held a diploma specific to teaching, while 47% had earned a university degree.

Procedure and instruments. The procedure included an initial meeting with the research team and teacher staff, to explain aims and methods of the research. During the month of May 2025 teachers were asked to complete a set of self-report questionnaires. Four instruments were used:

Perceived Stress Scale (PSS) (Cohen & Williamson, 1988), the 10-item version was used for the research, referring to the last 30 days. The questions explore how individuals perceive their ability to manage daily situations and demands and whether they feel overwhelmed, anxious, or unable to cope with challenging situations.

WHO-5 Well-Being Index (WHO-5; OMS, 1998), including 5 statements exploring an individual state of well-being and emotional experiences over the past 2 weeks (e.g. presence of positive feelings, degree of relaxation, energy level).

Nature Relatedness Scale–Short Form (NR-6; Nisbet & Zelenski, 2013), a 6-item scale to assess 3 main dimensions: emotional connection with nature, identification with nature as an essential part of oneself, and the degree of awareness of the interdependence between the natural environment and human beings.

Ad hoc questionnaire on OE, developed by the first author to assess the dimensions of perceived well-being in relation to the outdoor education activities (divided into 3 parts: Outdoor Education Skills and Use of Outdoor Spaces; Educational Value of Outdoor Activities; and Indoor versus Outdoor Well-being).

Affective Qualities of Place Scale (AQP; Russell & Pratt, 1980), a questionnaire composed of a list of 48 adjectives to describe emotional and affective characteristics that a place can evoke. Participants were asked to rate how well each of the 48 adjectives described the place under consideration, that is the outdoor space at school. The 48 adjectives are divided into 4 positive dimensions (Relaxing, Pleasant, Stimulating, Exciting) and 4 negative dimensions (Stressful, Unpleasant, Depressing, Soporific/Boring).

Data analysis. Data analysis was conducted using Jamovi software (version 2.5.6) and included descriptive statistics, Pearson correlation analyses, and repeated measures ANOVA.

Results

Descriptive statistics on Perceived Stress Scale (PSS) reported a mean score of 16.8 (SD=8.21), indicating a moderate level of perceived stress. Based on suggested cut-off values, 35.3% of teachers reported a low level of stress, 52.9% moderate, and 11.8% high. The mean score on the WHO-5 Well-Being Index was 16.2 (SD=4.87), with 76.5% of participants scoring above the recommended threshold of 14, suggesting a good psychological well-being. The correlation between PSS and WHO-5 scores was negative and statistically significant ($r = -0.63$, $p = 0.007$), confirming that an increase in perceived stress was associated with a decrease in psychological well-being. The mean score on the Nature Relatedness Scale–Short Form (NR-6) was 4.32 (SD = 0.52), suggesting a good level of connection with nature among participants; no statistically significant correlations emerged with perceived well-being or stress measures.

The assessment of the affective qualities of outdoor spaces, conducted through the AQP, revealed a generally positive perception of outdoor environments. The highest mean scores were detected for “Pleasant”, “Stimulating”, and “Relaxing” qualities, and negative domains such as “Depressing” and “Unpleasant” reported very low mean values. The domains “Relaxing” “Pleasant” and “Exciting” showed a significantly positive correlation with WHO-5 ($r = 0.55$, $p = 0.02$; $r = 0.54$, $p = 0.024$; $r = 0.54$, $p = 0.024$), and the “Stressful” dimension resulted positively correlated with PSS scores ($r = 0.58$, $p = 0.014$).

The OE questionnaire showed some interesting results: 65% of participants indicated a preference for outdoor spaces compared to indoor ones, and 59% reported to feel better in outdoor spaces. The comparison between teachers’ perceptions of indoor versus outdoor well-being (ad hoc OE Questionnaire) revealed significant differences: “I feel relaxed” ($p = 0.008$), “I breathe better” ($p = 0.001$), “I experience well-being” ($p = 0.007$), “I have to raise my voice” ($p = 0.02$), “Difficulties in children management” ($p = 0.02$), “I feel stressed” ($p = 0.05$), “Sometimes I lack air” ($p = 0.05$).

Further analyses revealed that perceived stress in indoor environments due to noise (item “Noises make me feel uncomfortable”) was negatively associated with WHO-5 ($r = -0.57$, $p = 0.02$); and perception of wellbeing connected to the outdoor environment (item “I feel a sense of well-being”)

was positively correlated with the positive perception of the environment in terms of “Stimulating” (AQP test) ($r = 0.48$, $p = 0.048$).

Discussion

Overall, the study results support the initial hypotheses. The outdoor environment, as perceived by teachers, appears to be a space conducive to promoting teachers' psycho-physical well-being. The results are consistent with a growing body of literature highlighting the benefits of contact with nature for both psychological and physical well-being and stress reduction (Berman et al., 2008; Bratman et al., 2012; Hartig et al., 2014; Zhang et al., 2024; Grabowska-Chenczke et al., 2022; Twohig-Bennett et al., 2018), supported also by the Attention Restoration Theory (Kaplan & Kaplan, 1989) and Stress Reduction Theory (Ulrich et al., 1991).

The findings suggest that the external environment, used for all the outdoor activities promoted by teachers from kindergarten to primary school, is commonly associated with a greater sense of well-being and a reduction in stress. The positive effect of being outdoors on perceived psychological well-being is particularly significant and the data collected showed that preschool and primary school educators and teachers tend to feel more comfortable and relaxed outdoors compared to indoor; the presence of natural stimuli, reduced noise levels, a greater freedom of movement and the possibility to promote more interacting and engaging activities with children seem to contribute to a more relaxed and stimulating educational atmosphere.

Despite the methodological rigor and theoretical consistency, the study has some limitations. The small sample size and the absence of a longitudinal comparison limit the generalizability of the findings. and prevents the observation of well-being over time. Nevertheless, the study represents a starting point for future research, highlighting the need to further explore the topic with larger samples and in diverse school settings.

In conclusion, the results suggest that integrating Outdoor Education into daily educational practices can contribute to teachers' well-being. Therefore, it is recommended to promote school policies aimed at enhancing outdoor spaces, training teaching staff in Outdoor Education/learning, and designing sustainable, accessible, and stimulating educational environments.

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A tool for assessing connection to nature at Forest School. Addressing Human Ecodependence and Interdependence.

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"What would it be like, I wondered, to live with that heightened sensitivity to the lives given for ours? To consider the tree in the Kleenex, the algae in the toothpaste, the oaks in the floor, the grapes in the wine; to follow back the thread of life in everything and pay it respect? (...) Even the metal of my lamp asks me to consider its roots in the strata of the earth. But I notice that my eyes and my thoughts pass quickly over the plastic on. Plastic is too far from the natural world. I wonder if this is where the disconnection begins, the loss of respect, when it is already difficult for us to see the life inside the object."

Kimmerer, Braiding Sweetgrass (2013)

Introduction

Connection with nature is a core element of forest schools. Within the polycrisis scenario, the Anthropocene and the need for a significant transition from the fossil fuel age to a new world powered by renewable energies as signs of the times, this paper raises a question of the greatest relevance to forest schools: the way in which practitioners and teachers experience, perceive, understand and pedagogically transmit what we call *nature*. Furthermore, forest pedagogy should raise questions such as "What do we mean by *nature*? What does connection/disconnection from *nature* mean? What are the keys for interpreting our (re)connection with *nature*? How do teachers cultivate, observe and assess such connections?" Forest schools need informed pedagogical answers which enable the consolidation of a learning model with the potential to challenge the assumptions that put limits on our relationship with the planet.

This paper echoes forest schools' potential to reach a privileged position in the socio-environmental agenda for today's schools, and to that end, it adopts an *ecosocial* perspective, meaning a perspective that incorporates two basic principles: human beings' profound eco-dependence and interdependence. Firstly, the recognition that, in order to live, human beings require "a whole series of functions that only healthy or functional ecosystems can perform: soil fertilization, water purification, pollination, climate regulation, etc" (González Reyes & Gómez Chuliá, 2022, p. 34); these involve recognition of the biophysical limits of the entire economic and social architecture, of

the model of production and consumption, and the profound revision of the social imaginaries and collective representations almost worldwide, and specifically, in the global north.

Secondly, the recognition that human beings are not isolated beings, but, rather, being who live in continual interdependence (Mamas and Mallén-Lacambra, 2024). However, interdependence does not exist only in humans' relational condition: it is also present in relationships between other living beings (Margulis, 2002), and between human beings and connection hubs with other living beings (Morizot, 2021).

This perspective makes it possible to rethink and reposition forest schools without any need to dilute the human condition's constitutive specificity with regard to its capacity for political and moral agency. In fact, the opposite is true: the ecosocial perspective reinforces a critical narrative which makes use of the connections between economic and social problems, on the one hand, and environmental issues, on the other.

The features of nature

There is a point of view which is highly influential in forest schools nearby. Assumptions taken about nature tend to be about a physical place which is wild, virgin, or, at least, very little altered by human activity. That is woodland at first glance. Nature in opposition to cultural factors. This understanding of nature –much favoured by the Romantic movement– is still quite common in forest schools within our cultural context (Gutiérrez-Pérez, 2024). It is well known that natural spaces arrange, stimulate and regulate learning environments in such a way that they enrich learning possibilities. However, in many discourses natural spaces are fundamentally perceived in an experience-based way. Something that reveals itself in its own scenic beauty, or as a totality which we belong to. In other words, "a vision of nature in which its relational characteristics and our sensitivity are highlighted" (Arribas, 2023).

If it is open up to the Gaia hypothesis according to which nature is understood to be a self-organizing living macroorganism, the panorama widens: Gaia becomes "a complex entity that involves the biosphere, atmosphere, oceans and land, constituting in its entirety a feedback system that seeks an optimal physical and chemical environment for life on the planet" (Lovelock, 1986). Thus, Gaia includes a reserve and flow of materials, organisms and energy, while also recognising non-material, relational characteristics (Rosa, 2000). This shift has far-reaching consequences: it places human beings as eco-dependent and interdependent on nature. In turn, this also affects the way forest schools pedagogically interpret learning environments as well as connection with nature.

Connection, disconnection and reconnection to nature

With regard to connection to nature, it has been widely proven that forest schools strengthen children's emotional and experiential bond with nature from a very early age (Chawla, 2020; Barrable, 2019; McCree et al, 2018; Harris, 2017). However, in terms of the above-mentioned wider understanding of nature this connection can also coexist – and indeed does coexist – with large amounts of 'fictitious' disconnection (González Reyes and Gómez Chuliá, 2022). It is 'fictitious' in that the profound connection between the biophysical and the hypermodern models of life exists – we are just unaware of it, and behave as if it did not exist. We live in a dissociated way. Fictitious disconnections lead people to parallel realities which prevent them from taking responsibility for the situation. Children are not exempt from this fictitious disconnection once their access to natural spaces is removed; once they return to routine socialisation in which unsustainable

perceptions, models and cultural patterns prevail. Therefore, it is important to deal with connections and disconnections from nature in a broad sense, including positive as well as negative feelings. It is also important to integrate them. As a consequence, the educational intention reflects this vision of nature, which includes relational attachment, photosynthesis and thermodynamics (Hornborg, 2017; Wrigley, 2021). And, reconnection with nature also has to serve to integrate what we dissociate on a daily basis. In this way it opens a path toward addressing the ‘fictitious disconnections’ to which a great majority of teachers as well as children are all prone.

Observation and assessment of connection with nature in forest schools

Chawla has described the indicators of connection with nature. For example, attraction to nature, curiosity and interest in nature, and positive experiences in connection with nature, as well as emotional identification with nature, empathy with other living beings, understanding the interdependence between humans and nature, and motivation to protect nature. Finally, feelings of loss and fear in connection with the environment (Chawla, 2020). This includes both positive and negative feelings. Barrable and Booth (2022) have also addressed the matter of disconnection as the negative of connection in primarily experiential terms. Their empirical research has been based on an index of connection to nature developed by Richardson, Hunt and others. The Nature Connection Index (NCI) is a Likert-type scale consisting of six items, associated with emotion (*Being in nature makes me happy, Being in nature is really amazing*), beauty (*I always find beauty in nature*), contact (*Spending time in nature is very important to me*), meaning (*I always treat nature with respect*) and compassion (*I feel part of nature*) (Richardson, 2019). The connection/disconnection indicator is explained in gradual terms. However, the connection appears to be assimilated to the experiential, sensorial and relational aspects of natural spaces. Chawla expands on this and includes empathy with other living beings and understanding of human interdependence as dimensions of connection. There is already a shift towards a broader, more up-to-date conceptualization of natural spaces, but connection/disconnection still appears as a dichotomous mutually exclusive variable. In its place this study proposes a Likert type scale on which multidimensional connections/disconnections are related to each other. Not only in an experiential sense, but also from a cognitive, symbolic, material and emotional point of view (Beery et al, 2023; Ives et al, 2018). Because all of these approaches are relevant in order to understand the Gaia hypothesis. There are many different types

of nature connection, and that makes it problematic when nature connection is reduced to a single idea. To the contrary, the more connections there are, the larger the positive feedback loop may become. (Free play) Child-led activities can be complemented with (Learning Situations) teacher-led activities which challenge various ecosocial capabilities.

Finally, the pedagogical strategy provides an evaluation tool based on direct observation, a 21-item template where practitioners can record evidence and examples.

TABLE 1.
ASSESSMENT TOOL FOR CONNECTION TO NATURE

Variable	Dimension	Indicator	Item	Scale
		Physical contact	Do they explore the terrain? Do they use a variety of natural	Likert

Nature connection	Physical, Material, Cognitive	Emotional, Symbolic,		materials in his play? Do they use nature to discover the limits of his body?	
			Sense	Are they in touch with nature through all his senses?	Likert
			Emotions	Do they enjoy of natural settings? Do they show curiosity towards animals and plants? Do nature give they wonder? Do nature give they peace? Do they use the natural context to self-regulate his/her emotions?	Likert
			Aesthetics	Do they enjoy the beauty of nature? Do they value the beauty of nature?	Likert
			Cognition*	Do they make hypotheses about nature? Do they represent the understanding that all living are interconnected? Do they give examples of why we need nature in our daily lives? Do they give examples of how nature recycle all its elements?	Likert
			Meaning	Do they give great importance to forest school sessions? Do they share mythological, literary or other stories about nature? Do they celebrate natural events? Do they have a rich language and vocabulary about nature?	Likert
			Compassion	Do they represent care and love for nature? Do they have initiatives to preserve and protect nature?	Likert

Source: Own elaboration based on Bihotz Inguru baso-eskola, Richardson et al. (2009), Beery (2023), and Chawla (2023).

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Education Outside the Classroom at the Teacher Education – a double-sided didactic approach

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To ensure the provision of high-quality outdoor teachers, the teacher education programs must offer relevant and practice-oriented content. As a first step in supporting the cascade from teacher educators to teacher education and ultimately to pupils in school, we conducted an initial survey examining the prevalence and quality of Education Outside the Classroom (EOtC) among teacher educators in Denmark (Barfod et al., 2024). In Denmark, the EOtC component of teacher education has been an elective course but should now be integrated in all subjects. Thus, what was once introduced to only a select group of students, it would now become more widespread. But is this truly the case?

The model of the elective course illustrates how EOtC, in the form of ‘Udeskole’, was previously integrated into the subject content in teacher education (Fig. 1), and how it ideally should be now. However, we are concerned that core components may now be missing.



Our nationwide survey of Danish teacher educators (N = 840) revealed that approximately 40% either discuss or implement EOtC in their subjects. However, these educators typically possess only limited formal qualifications in the field (Barfod et al., 2024).

Distribution of Teacher Educators with content involving teaching outside the Classroom (DK)



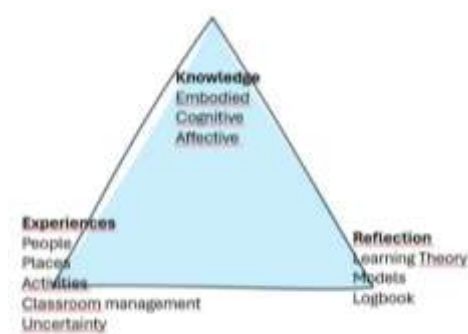
Working in teacher education involves engaging in a university practice, that must be transformed by the teacher educators and teacher student into approaches applicable in school settings. So how do we approach EOtC (Udeskole) within teacher education?

To identify core or key elements in the teacher's education, we were inspired by Blenkinsop et al. (2016), who proposed what teachers gain from experts in Outdoor Education experts. These are briefly outlined below:

Pedagogical and practical skills, mostly learned through intuition, on-the-job training and good mentoring, that are of significant use (Blenkinsop et al., 2016)

Opportunities for rhythm and structure in the outdoors, becoming aware of and sensitive to one's surroundings

- *Lateral thinking with a 'wild' curiosity*
- *Intellectual flexibility (dirty sock)*
- *Risky learning: living with uncertainty and anticipating the unexpected*
- *Safety and experience-based judgement*
- *'Eco-reflection' and evaluation*
- *Time for self – and student reflection*
- *Hearing from those who are usually unheard*



These qualities align with the ones identified by Nicol (n.d.), that listed core qualities for the outdoor teacher, as knowledge, belief, creativity, stamina, leadership, visionaries, initiative and restructuring abilities.

Building on this foundation, and more than 20 years of experience, we propose a model in which core elements are divided into types of knowledge, experiences, and reflection. These elements aim to introduce teacher student to meaningful and pragmatically feasible practices within teacher education – thereby connecting og bridging the

university-based practice with the realities of school teaching practice.

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The Institución Libre de Enseñanza's Holiday Camps: first experiences of education in leisure time in nature in Spain

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The 'Institución Libre de Enseñanza' (ILE) was a benchmark in education in Spain between 1876 and 1936. It was founded by a group of Spanish Professors who were removed from public education for defending academic freedom and refusing to adjust their teachings to the official dogmas. These Professors were Francisco Giner de los Ríos, Federico Rubio, Gumersindo de Azcárate and Nicolás Salmerón, among others.

Krausism was his ideological basis, as well as others new pedagogies of the time, such as English pedagogy, Darwinism, positivism and socialism (Otero, 2001). The ILE proclaimed the academic freedom and the inviolability of science as its principles. Its main objective was to promote a culture of freedom for the Spanish people; thus, the ILE aimed to cultivate and propagate science through education (Jiménez-Landi, 1996).

In terms of its educational principles and pedagogical values, the ILE defended a neutral education, the comprehensive education of the person, co-education, active education, outdoor sports practice at schools, hiking with students, promotion of hygiene habits and care of aesthetic education. It was also considered that teachers should act as guides in learning, not just as mere transmitters, and that punishments should not be used. They also cared for intellectual education, teaching through life experiences and avoiding memorization (Luzuriaga, 1957; Otero, 1994). All of them are very current principles, but they are still not followed in all schools. Hence the importance of making the ILE known and continuing to promote them in current education.

So, the ILE's teachers developed their work mainly outside the classroom, with these innovative pedagogical principles and an active methodology. They dedicated themselves to regulated education (in all its stages), but they were pioneers in the organization of non-formal education activities in nature in Spain too.

Holiday camps (or Country holidays) were one of their most important activities. They followed the example of the first camp on record, conducted by Walter Bion in Zurich (Switzerland) in 1876. Its aim was to improve the health of the most vulnerable children in working class families. The initiative soon spread to other Swiss cities and to many other countries across Europe and the rest of the world, because of the observed improvement of the children after the expedition (Cano & Revuelta, 1995).

In Spain, the National Pedagogical Museum undertook the first camp in 1887, in San Vicente de la Barquera (Cantabria, North of Spain), following the ILE's principles and the Swiss example by Bion. Professor Manuel B. Cossío was one of the teachers who organized this first Spanish experience of Holiday camps. First, Cossío was a student of the ILE and disciple of Giner de los Ríos, then he was a teacher in the institution, the creator of the National Pedagogical Museum and its director. In Cossío's words, the Holiday camps were aimed at those children who, without a defined ailment, needed to strengthen their nature to prevent illness through fresh and pure air,

healthy living conditions, nourishing food, movement, play and joy, but where pedagogical attention took precedence (Otero, 1994).

Thus, the ILE's Holiday camps added one more objective to that of improving the children's health: that was to continue the work of the school, both intellectually and physically, as well as educational and social (Jiménez-Landi, 1996). Children would follow routines of cohabitation, write a diary, practice sports, hiking and go on excursions to nearby villages, analyse the environment and the landscape, swim in the sea... All this accompanied by several teachers who guided this experience (Ontañón, 2004).

The ILE keeps its Holiday Camps alive, adapted to current world, but continuing with the educational principles with which they were founded. Encouraging the children's disconnection from technology while facilitating their reconnection with nature has become the camps' most important purpose, along with fostering a sense of community and togetherness among fellow pupils and teachers alike.

It is worth noting that the objectives pursued by the ILE's Country holidays are broad and firm. It is easy to see how some goals have been maintained since their inception in 1894, while others are renewed and adapted to new times.

Thus, by way of comparison, during historical ILE's Country holidays, the goals were:

- improving the hygiene and the education of children from the most disadvantaged urban classes, in a situation of exclusion and precariousness,
- improving the quality of life of children, giving them the opportunity to learn in groups, with activities in nature, hiking, playing, practicing outdoor sports, swimming in the sea...

Nowadays, ILE's Country Holidays try to continue with similar but renewed objectives:

- seeking the appropriate means to solve the problems of current society,
- living with other children and with teachers, educating in civic values,
- reconnecting with nature and disconnecting from the technological routine,
- practicing sports outdoors and with game-based learning...

They work as a "small society", in which children and teachers get involved in coexistence and mutual respect. The participants gain enough confidence to express themselves, while living unique experiences with the group. It tries to attend to each child individually, respecting learning times.

The programme is flexible and open, adapting to each specific group. Any opportunity is good for learning. Furthermore, teachers try to convey useful knowledge for daily life and for the future of children. The ILE's Holiday camps are organized under the principles of respect, equity, solidarity and critical spirit. Activities try to develop curiosity and self-learning.

In this way, every year, with the arrival of summer, many families choose to enrol their children in a summer camp. The current options are very wide-ranging and varied: overnight camps or only-day camps, in rural or urban areas, with a variety of themes, including adventure, sports, creative activities, music, language camps, scout groups, and more.

However, the ILE's Country holidays have an educational project that has been developed since the initial hygienist movement, which marks a character of tradition, care and diligence in its execution.

This is difficult to find in other similar experiences in Spain. They continue with that aspect of hygiene and with the pedagogical aspect, and they are preoccupied about more current aspects, such as emotional education, reconnection with nature or education in civic values.

For the organisation of the ILE's Holiday camps, the first challenge to overcome in each edition is the choice of location. A tourist or youth hostel that can accommodate a group of between 30 and 40 people (including children and teachers) is required, where they can live together as if they were a family. Not so much like a hotel, but rather like a family home. Furthermore, it is essential that this hostel is located in a rural area, surrounded by nature and with outdoor spaces that can be used daily. The proximity to the sea or a river where children can swim frequently is also valued.

The Institution still owns the meadow with the ruins of the house where the historical Holiday camps took place, but it is useless. So, they rent a hostel to organise the activities each summer. In recent years, the camps have been held in Cantabria, León and Galicia, all of them in small towns of the north of Spain.

The ILE's Holiday camps have maintained many customs over time. A large part of their activities, always with educational purposes for enjoyment and learning, have persisted and been preserved with few changes up to the present day (Otero et al., 2013). Some of the most important activities are:

- Hiking and outdoor activities: to be in harmony with nature, to experiment with the senses, trying to awaken the curiosity of children, to participate in guided activities, to practice outdoor sports, free play, or simply to have a snack and converse outdoors; there are also walking visits to nearby villages where they can see some museums and buildings of cultural and artistic interest.
- Dairy or journal: every day, children write what they did the day before. They use a notebook made by themselves. It is an activity that, at first, they find difficult to do, but they gradually get used to it. At the end of their stay, each one takes home their notebook and, in general, they keep it as a memento for life.
- Science workshops: geography, landscape, flora and fauna of the area... all them are fantastic educational resources that are utilised in activities aimed at awakening children's scientific vocation.
- Workshops – Aesthetic Education: teachers prepare a complete workshop that helps to enhance various skills in children, as they learn to work in phases, to create designs on paper and bring them to life in a coherent way, to be careful when handling delicate tools, to collaborate with one another... It also primarily enhances manual skills. Children build a boat or a car out of wood, or a puppet with plaster and scraps, for example, with the aim of holding a regatta, a race or a puppet show, respectively.
- Theatre: although we have no record of this activity being carried out in the historical camps, theatre holds great importance in the current experiences. A performance marks the conclusion of each edition. It involves organising and putting the whole production into action: from learning the role and how to interpret it, to preparing the scenery and costumes.
- Choir: the ILE published a Songbook with the lyrics and chords of popular and traditional songs that the ILE's Professors collected during their travels through Spain. Children song these popular songs and analyse the changes in customs of Spanish life.

Despite the multiple options that exist today, many families say they cannot find any other camp like this one. Most children return and repeat the experience for several years. Its updated traditional character makes the difference with other camp experiences, worrying more about educating than teaching, valuing details and taking care of each person, without trying so much to comply with a rigid program. Thus, the number of offered camps has had to be increased to meet the growing demand.

In short, ILE's Country holidays are a historical and current activity, from a preventive need to a culture of educational leisure time in nature. They are an example of preservation of good educational practices. More than a century following the same pedagogical principles and methodology, and they are still in full force.

Nowadays, the ILE continues to be admired and carried on from different perspectives: the ILE Alumni Corporation, the Francisco Giner de los Ríos Foundation and its Non-Formal Education School work in mutual collaboration with the aim of ensuring that the legacy is not lost and of opening new fields of intellectual interest for children and adults. They seek to establish the ILE as a place of culture, education and society, once again engaging in the education modernisation (Otero et al., 2013).

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JFK Outdoor School: A Place-Based Learning Journey in the Bernese Alps

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JFK, International School-Switzerland

Education is not confined to the four walls of a classroom. At JFK School, the beautiful Bernese Alps serve as both backdrop and classroom, offering a unique environment and educational experience. Our approach blends traditional academics with immersive outdoor learning, academic rigor with real-world experiences, preparing students to think critically, collaborate effectively, and connect deeply with the world around them.

A Philosophy Rooted in Outdoor Learning

The JFK Outdoor School is at the heart of this philosophy. Being a co-curricular program, it integrates outdoor learning principles into the daily rhythm of the school, and it is so designed to complement and enhance classroom learning through real-world experiences. Weekly sessions for Primary and Middle School students are designed to be immersive, hands-on, and linked to the broader curriculum. These lessons, lasting up to two and a half hours, invite students to explore, observe, and inquire in natural and cultural environments.

Expanding Horizons Through Academic Trips

Outdoor learning extends into the Academic Trips Program, a transdisciplinary initiative that takes students beyond the familiar. Whether exploring local history in Bern, hiking through Swiss forests, or traveling abroad, these experiences deepen understanding and foster curiosity. Annual highlights include September overnight trips for all students, the October Year 9 Humanities Trip, all school Spring Trips in May, and the June Year 9 Graduation Trip.

Curriculum integration, assessment & educational approaches

Both, the Outdoor School and the Academic Trips Program are grounded in student-centred methodologies. We embrace student-centred methodologies that prioritise active participation and personal growth. Experiential learning is at the core of our approach, allowing students to learn by doing and reflecting on their experiences. Inquiry-based and project-based learning strategies encourage curiosity and critical thinking, while the flipped classroom model fosters independence and collaboration for students to take ownership of their learning. Each trip and project are linked to specific learning goals and assessed using formative strategies. Rubrics are being developed to evaluate student performance in areas such as collaboration, problem-solving, and communication. We analyse and discuss ongoing feedback with teachers, and students are encouraged to reflect on their experiences through journals and presentations. This holistic approach supports both personal development and academic achievement and it is particularly effective in outdoor settings, where students encounter unpredictable challenges and must adapt creatively.

A Rich range of Activities

Our outdoor program includes a diverse array of activities tailored to different age groups and learning goals. From nature hikes and science experiments to art projects and community service,

the range of activities is intentionally diverse. Students might be found navigating an orienteering course, sketching local plants to understand the Fibonacci sequence, or role-playing historical figures. Nature hikes provide opportunities for ecological exploration and physical fitness. Workshops and museum visits connect students with local history and culture. Literacy and art projects in natural settings inspire creativity and expression. Community service initiatives foster empathy and civic responsibility, while sports events promote teamwork and resilience. These moments not only support academic goals but also nurture creativity, resilience, and interpersonal skills.

Learning in Action: Examples Across Ages

For younger students, outdoor learning often begins with curiosity. Among others, they early engage in activities such as visits to Château de Chillon, Château de Gruyères, the Ballenberg Open-Air Museum, the Paul Klee Museum with sensory walks, or the Year 2 Worm Project exploring local wildlife. As some other examples, we can highlight Year 4's Inventions Unit, that takes students to Bern's Zytgloggeturm clock tower to uncover its mechanism and historical significance. Year 5's Being a Historian Unit combines museum visits with hands-on research into Einstein's life and work. Students examine his groundbreaking work in 1905 and visit his former apartment. A tour of the History Museum helped them understand changes in Bern's living conditions over time. The Year 4 & 5 Outdoor Literacy Project, spanning four weeks, demonstrates the power of nature to inspire. Through literacy games on hikes, role plays, art-based storytelling, and creative writing challenges, students develop language skills alongside confidence in public speaking. For Middle School students, projects become more specialised and interdisciplinary. In the Saanenland Project, Years 8 and 9 research local industries, tourism, education, and culture, building a holistic understanding of the community. In collaboration with "a-Hike" professionals, our Beaver's project, Year 6 and 7, students acquire more knowledge about sustainability, biodiversity, ecologism and natural science by getting to know about the life, routines and skills of these fascinating animals and their impact on the landscape. The project last over 5 weeks, including an overnight and wildlife watching. Collaborative art and science projects links observation to creative output, while the Orienteering sCool School Project blended physical fitness with navigational problem solving. The collaboration with homeroom and single subject teachers as well as the search and collaboration with external professionals, greatly enrich projects and the teaching-learning process itself, arising as main keys for the right development of both programs.

The Heidelberg Humanities Trip: A Capstone Experience

The Year 9 Humanities Trip to Heidelberg stands as a capstone experience, merging history, science, and social studies. This two-day trip intends to enhance and boost students' education outside the classroom. It promotes personal growth by fostering curiosity during tasks and visits, and looks to disrupt student's routine, immersing them in different environments and cultures where to create learning memories and social bonds.

- History & Literacy & Social science- On day 1, students are encouraged to run a city rally tour, using Heidelberg's old town as a board to solve tasks and activities, either individually or as team, related to the topics above.
- Science- On day 2, students do the tour Bodyworlds "Anatomy of Happiness" offered by the city council of Heidelberg. Students follow the traces of medicine and learn about Heidelberg's anatomical history. The tour ends at the Body Worlds Exhibition Museum

where they have an anatomic/science lesson.

Reflections and Future Directions

The impact of our outdoor program is evident in the enthusiasm and growth of our students. Looking ahead, we plan to integrate more interdisciplinary projects that bridge science, humanities, and the arts, and we aim to expand our partnerships with local organizations and explore new destinations for academic trips. Education is a journey, sometimes literally, and we are seeing that students become more confident, curious, and connected to the world around them as these programs are ongoing.

“What I like about Nature is what it creates”: children's stories in the Ariosto primary school in Reggio Emilia

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Rosa Buonanno holds a degree in Biology and a PhD in Reggio Childhood Studies from the University of Modena and Reggio Emilia (UniMoRe). She taught for ten years at the Loris Malaguzzi International Centre, where she also worked as a trainer on the Reggio Emilia Approach on behalf of Reggio Children, both in Italy and abroad. She participated in the international research project TIDA – Tinkering in the Digital Age in collaboration with the Reggio Children Foundation, LEGO, the Exploratorium, and the MIT Media Lab. She holds two master's degrees: one in Futuro Vegetale from the University of Florence, and another in Management della Transizione Ecologica from UniMoRe. She also collaborated for six months with the Fondazione Futuro delle Città in Florence, directed by Stefano Mancuso. She is currently a member of the BEAT research group.

² *Atelierista at the Reggio Children Foundation*

Riccardo Ronzoni, atelierista. I started working with Fondazione Reggio Children in May 2024. My experience with the Reggio Emilia Approach began by participating in the training course *The Body and its Dance*, organized by Reggio Children in collaboration with Aterballetto-Fondazione della Danza. Since then, I have worked for 10 years in the infant-toddler centers and preschools of the Municipality of Reggio Emilia managed by the Panta Rei Cooperative as an educator and atelierista. My background is in contemporary dance but I have opened myself up to many other languages, following my interest in nature, the language of plants and the languages of taste and food. I lead dance and movement workshops for children, teachers, and families.

People often overlook the presence and importance of plants in the biosphere, failing to appreciate their aesthetic and unique features. Additionally, plants are frequently regarded as inferior to animals. This phenomenon, known as plant blindness, was first defined by Wandersee and Schussler (1999; 2001). More recently, Parsley (2021, p. 96) introduced the term plant awareness disparity, which “highlights the fact that the root of the problem with this phenomenon is a disparity in visual attention between plants and animals.” In response, Peter Pany and his team (2022) introduced the concept of plant awareness, aiming to foster a deeper recognition of plants and their ecological significance. Building on this premise, our contribution began with the hypothesis that plant awareness can be actively cultivated through specific educational strategies. Existing literature emphasizes the importance of engaging with plant life—not only for students, but for humans more broadly—as a way to counteract plant blindness and re-establish meaningful relationships with the vegetal world (Wandersee, 2006; Stagg & Dillon, 2022). This study presents research conducted within Digital Nature, a Scuola Futura project, the PNRR platform for training school staff, promoted by the Italian Ministry of Education, in collaboration with the Reggio Children Foundation, focusing on a fifth-grade primary school class in an urban context. Through the lens of urban ethnobotany (Arenas et al., 2011; Hurrell et al., 2011), the study explored children's relationships with plants by integrating digital tools, embodied learning, and narrative practices to foster ecological awareness and critical engagement.

The pedagogical approach of the Reggio Emilia municipal schools, inspired by Loris Malaguzzi, has long promoted the integration of multiple expressive languages and technologies. Since 1984, personal computers have been introduced not simply as technical tools but as aesthetic, relational, and cognitive instruments, enhancing children's perceptive and expressive capacities (Buonanno & Paoli, 2024). Building on this legacy, the Digital Nature project sought to integrate digital tools with nature-based experiences, enabling children to explore the natural world in imaginative and embodied ways. Here, technology was not used as a substitute but rather as an amplification of perception and sense-making—facilitating connections between observation, storytelling and movement. The integrated and conscious use of digital technologies became a language to support investigation, offering further opportunities to discover, delve into the subject and immerse oneself beyond physical perception. In this study, the central theme was Movement, chosen in part due to the multicultural composition of the class, where many children had a migration background. Movement was thus understood in multiple dimensions: not only the movement of people, but also of plants, knowledge, stories, and traditions. Movement, transformation, change as a law that governs life on the planet.

The project was guided by three main research questions:

What is nature?

Exploring children's initial conceptions of nature and biodiversity.

Which plants do you know, and who told you about them?

Investigating the sources and contexts of botanical knowledge.

Do plants move?

Examining children's perceptions of plant movement and their interpretations.

The study adopted a dialogical approach, not offering a one-sided account of experience but seeking to actively integrate the voices of the people involved (Simonicca, 2013). Data collection included semi-structured group interviews, individual diaries, and animations created with the app FlipaClip—an application that allows the creation of frame-by-frame animations to simulate movement. The use of FlipaClip enabled children to animate their discoveries, providing a creative means of engaging with digital tools while exploring plant movement. Through this process, they reflected on the timing and patterns of the movements they observed, reproducing them visually and thereby deepening their understanding of plant behavior and the relationship between body and nature. The initiative stemmed from a desire to reconnect children with the natural world by using technologies as a medium for investigating plant life and movement, with the idea of a supportive digital. Its objective was to promote interaction among diverse tools and materials, enriching sensory, visual, and emotional perceptions and enhancing the aesthetic quality of learning experiences. Technology used to represent and interpret reality from other points of view, amplifying the senses, the basis of every cognitive experience. Mobile devices, when thoughtfully integrated, hold significant potential to make encounters with nature more constructive and engaging, especially in light of the fact that children and young people today often spend more time interacting with screens than directly experiencing the outdoors. This reality underscores the importance of developing educational strategies that meaningfully and consciously incorporate

digital technologies into pedagogical practices (Kissi & Dreesmann, 2017; Rode & Torkar, 2023), while attending to contextual relevance and fostering social interaction (Buonanno, 2024).

Pedagogical documentation, conceived as a collective and collaborative archive (Ibidem), supported learning by narrating the process through which children internalized the complexity of the web of life. It demonstrated how children, drawing on prior knowledge and guided by adults, sustained and enhanced their understanding. Revisiting their traces led to a process of interpretation and connection to new ideas—not as a linear accumulation of knowledge but as an inquiry built on open-ended questions. This documentation was not rigid or fixed; rather, it generated connections—an elaborative, group-based research archive, a working platform where both children and adults collaborated. It became an embodied language that gave form to everyday thoughts rooted in vibrant, lived experiences. It acted as a visual and communicative thread that traversed the learning process and, like a second skin, captured and revealed the richness of their evolving understandings (Ivi, 6). The initial question, “What is nature?” served as a gateway into children’s intuitive ecological frameworks. Responses highlighted a general recognition of nature as composed of living organisms—particularly plants and animals—often framed in moral or caretaking terms. While some answers focused on personal or sensorial experiences, others emphasized broader ecological systems, indicating a budding awareness of sustainability and interdependence.

Interestingly, children made limited references to school-based learning when describing nature. Instead, their understandings often stemmed from direct outdoor experiences or intergenerational transmission within the family. The question “Which plants do you know and who told you about them?” revealed a rich well of biocultural memory, often tied to stories, places of origin, and family members. These memories—termed green memories (Buonanno & Weyland, 2024)—acted as nodes of affective and cultural continuity. Plants represent a bond children keep with their countries of origin and with their cultural heritage.

Children’s examples:

“This is Grandma’s Garden in Sri Lanka – those are bananas. Mango grows behind, and there is coconut.”

“In the afternoon, we would sit under the tree, telling jokes and laughing together.”

Children associated botanical knowledge with family figures—grandparents, parents, and relatives—who were seen as keepers of traditional knowledge passed down through cooking, gardening, and storytelling. Families thus emerged as the primary context for the transmission of ethnobotanical knowledge, with school playing a more limited role (Tunnicliffe, 2000; Strgar, 2007).

To build on this, children were invited to conduct interviews with their relatives. These interviews expanded the documentation of plant knowledge and strengthened intergenerational connections. The diaries became tools to extend classroom inquiry into the family and community. Sharing with classmates introduced new botanical, cultural, and experiential knowledge that gave rise to collective multicultural learnings.

The third question—Do plants move?—prompted a series of outdoor explorations in the Parco del Mauriziano, just across from the school. Despite weather conditions, the group engaged in field observations, seeking evidence of plant movement and interaction with the environment.

Children observed how plants bend, open, close, twist, climb, and respond to environmental stimuli. These observations were then reinterpreted through body-based activities: children were invited to physically imitate plant movements, both individually and in groups. This embodied practice helped them internalize plant behavior and express it in affective, imaginative, and collaborative ways. By listening to their movement, children were able to connect with their senses, feel empathetically, perceive the natural environment and create memories. Throughout the project, documentation was a central pedagogical tool—not only for assessment but as a space for reflection, exchange, and listening. Children’s voices, drawings, movements, and stories were collected and shared, constructing a narrative map of their learning journey. The FlipaClip app played a vital role in transforming field observations into animated narratives. Through frame-by-frame animation, children synthesized their sensory experiences, bodily interpretations, and creative expressions into a new form of digital storytelling—bringing their learning to life and revealing both scientific insight and imaginative potential. From the diaries, recurring themes were identified and organized into response categories. These categories were discussed collectively and compared with real-life examples, helping children refine their conceptual frameworks of plant behavior. The ability to categorize and compare reflects early scientific reasoning rooted in lived experience and creative inquiry.

The emerging themes are listed below:

Uses:

Children recognized plants as sources of food and sustenance but also acknowledged their roles in health and healing.

Plant Informant:

Children consistently linked their botanical knowledge to a plant informant—a person who facilitated their learning and nurtured a deep relationship with plants. This figure, often a family member, embodied both emotional and traditional knowledge, shared through everyday acts.

Places of Interaction:

Places hold and evoke stories (Caccia, 2022). Every space contains a soul that stimulates and preserves the stories rooted in it. The school park served not just as a setting but as a dynamic context for inquiry, discovery, and wonder. Through repeated visits and observation, children developed what Sobel (2008) calls ecological literacy—learning to see with new eyes. A different way of experiencing space offered children and teachers a new perspective from which to observe places they already knew. New eyes, a new awareness of plant life in the urban environment, to immerse themselves and inhabit the landscape with a different sensibility.

Conclusion:

This study highlights an unexpected yet crucial outcome: the evolving role of teachers, who shifted from knowledge transmitters to co-researchers by embracing children’s narratives and their own uncertainties. This co-constructivist stance, consistent with the Reggio Emilia Approach, strengthened relationships and fostered authentic inquiry. Findings show that children’s plant knowledge is mainly rooted in family and experiential contexts, while formal education plays a limited role unless it adopts immersive, place-based, and narrative strategies. The integration of bodily movement, digital tools, and storytelling proved effective in deepening understanding of

plant behaviour and ecological interconnections. By immersing themselves in a sensory experience, children had the opportunity to recognize plants as another form of living being, another way in which Nature manifests itself. A chance to reflect on how plants communicate and inhabit the world through movement. Green memories (Buonanno & Weyland, 2024) further supported intercultural dialogue, community ties, and ecological awareness, contributing to a perceptual shift in which plants are recognized as active participants in ecological systems. Overall, the study underscores the need to combine traditional knowledge, embodied learning, and digital media, and to reconceptualize schools as ecological learning communities. As Hadzigeorgiou (2017) notes, narrative and imagination are key to fostering environmental responsibility; weaving together movement, memory, and media enables educational experiences that inform and transform, cultivating the next generation's ability to care for the plant world that sustains life.

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The Importance of Movement in Early Childhood: Evidence and Educational Perspectives

Lisa Parise, Serena Olivieri, Vania Cappelletti, Daniel Iversen, Manuel Castellini & Michele Miori

Canalescuola, Educate nel Bosco, Creativity Garden

The World Health Organization (WHO, 2020) recommends that children aged 3 to 6 engage in at least 60 minutes of daily physical activity, including moderate to vigorous aerobic exercises. From age 5 onward, it is also essential to incorporate muscle-strengthening activities at least three times per week. Physical activity not only prevents childhood obesity but also promotes healthy growth, supports motor and cognitive development, and enhances essential skills such as balance, coordination, mobility, and manual dexterity.

In Italy, despite the evidence supporting outdoor activity for young children, structured physical education outdoors is neither mandatory nor consistently integrated into early childhood curricula. Schools play a critical role in promoting active lifestyles; however, opportunities for meaningful physical activity remain limited, particularly in natural environments. Forest-based education models offer an alternative approach by situating early learning in outdoor settings that naturally encourage spontaneous, self-directed movement and physical exploration. These environments support the development of both gross and fine motor skills while fostering cognitive functions such as working memory and cognitive flexibility, which are foundational for planning and executing complex behaviours. This extended abstract presents a case study of the Educare nel Bosco Alto Garda e Ledro initiative—an early childhood education project that, since January 2017, has operated as a forest kindergarten in the Trentino region of Northern Italy. Inspired by the metaphor of the "motor development cascade" (Thelen, as cited in Adolph & Hoch, 2019), the programme treats motor development as a dynamic and fluid process rather than a fixed sequence of milestones.

Ongoing research led by Patrizia Tortella (University of Enna “Kore”) and Valentina Biino (University of Verona) seeks to examine how nature-based environments influence children's overall development. The study monitors the quantity and intensity of physical activity, as well as the quality of play observed in the forest setting. A central research question guiding this inquiry is whether a correlation exists between the amount of physical activity and the degree of free, spontaneous play among children in forest-based settings. Findings to date suggest that when given regular access to natural environments, children engage in more intense and varied physical activity compared to traditional indoor or urban school settings. The unstructured nature of forest play stimulates a wider range of movement patterns, challenges balance and coordination, and enhances children's agency and autonomy. Moreover, educators in the forest school act as facilitators rather than directors, creating opportunities for movement and learning through intentional yet unobtrusive guidance. From an educational standpoint, this approach aligns with constructivist theories of learning, in which movement and cognition are seen as deeply interconnected processes. The forest becomes not only a physical but also a cognitive and emotional space, where children's actions, decisions, and problem-solving skills evolve in direct response to the environment and to peer interaction. This model is particularly relevant in today's educational landscape, where increasing attention is being paid to the role of embodied learning in early childhood. In forest-based contexts, physical activity is not a separate or scheduled component of the day, but rather an integrated and

ongoing part of every learning experience. Climbing, balancing, digging, carrying, jumping, and running become vehicles for exploration, communication, self-regulation, and identity-building.

The research also highlights the critical role of adult presence in supporting active, autonomous play without inhibiting it. Adults must be trained to observe, scaffold, and interpret children's actions without imposing rigid structures or predefined learning outcomes. This reflective approach allows educators to respond flexibly to children's needs, creating an inclusive and supportive environment for all learners, regardless of developmental stage or physical ability. Preliminary observations from the study conducted in the Educare nel Bosco Alto Garda e Ledro setting suggest that children's executive functions—particularly working memory, attentional control, and cognitive flexibility—are also strengthened through regular engagement in physically and cognitively demanding play. These functions are critical not only for school readiness but also for lifelong learning and well-being (Biino, 2020). The “cascade” metaphor proposed by Thelen and expanded by Adolph & Hoch (2019) aptly captures this phenomenon: motor development is not linear but emerges from a dynamic system of interactions between the child, the environment, the task, and social context. As such, the forest becomes a living, responsive learning space where development unfolds in synchrony across multiple domains—motor, cognitive, emotional, and social.

In conclusion, this research points to the necessity of rethinking early childhood education policies and practices, especially in the Italian context, where outdoor activity is still marginalised. Embedding regular, high-quality movement experiences in natural environments within the educational framework can significantly contribute to children's holistic development. It also requires a cultural and institutional shift: from controlling children's bodies and time to trusting in their competence, curiosity, and intrinsic drive to move, explore, and learn.

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The Outdoors Where There Is No Green - Meeting Natural Educational Needs/Bisogni Educativi Naturali (Ben) In Every "Outdoors"
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Based on field experience and with the support of appropriate theoretical references, it is possible to uphold the importance and sensibleness of outdoor education regardless of the "natural" characteristics of the place. The shared contribution recounts the objectives, practices and outcomes of a project carried out in an urban context at a preschool, which can be linked to work in any setting and at every stage of life. The theoretical-practical framework is that of corresponding to BEN (Bisogni Educativi Naturali) and promotes a multidisciplinary and ecosofical approach. Thus the pedagogical potential of those who educate within an urban context is affirmed. Even more so, a sense of belonging and active participation in the local environment are developed as a significant consequences

The aim is to contribute to a reflection in a direction that is as current as it is necessary today. Its horizon is that indicated by the following question: what if there is no green? What are the outdoor potentials in the urban environment and/or in the peripheral areas that are heavily anthropized?

In the Italian experience, the contribution that Outdoor Education has provided to current pedagogical reflection is rich and varied. Its implications include a wide range of transformations that, starting from the "mental space" of the adult (and the related practices), impact how the "physical space" of the gardens and schoolyards are experienced and set up in an increasingly attentive way to the educational potentials they express.

Where the culture of educating outside has reached awareness and maturity, those who, like me, deal with training notices how in many of these cases, although the idea of "educating outside" finds a wide open door, it is not uncommon to see how the most recurrent idea of "educational outdoor" is that of a "natural" outside (not necessarily wild, but certainly with a certain and wide margin of "green").

In these cases, "outside" coincides with "nature" which in turn coincides with "green" which, concretely, implies that if there is no nature (there is no green) the outside is not considered suitable for outdoor education. Is this really the most useful approach to childhood?

If this were the case, educating adults and children who do not have green courtyards (or who do not have a courtyard at all) would create the perception of an unachievable desire, of a "we wish we were like them..." (like those who have a green garden, a forest, a minibus to go there, etc.) or, in other words, of a "we would like to educate outside but we can't". Without questioning the innumerable potentials of "educational green", and without delegitimizing the discouragement of a missed opportunity, this reflection aims to offer a possible answer to the following question: if there is no green, is there no outdoors?

Answering such questions makes us lay the connection between Outdoor Education leading to the practices of Outdoor Learning. The starting point of our reflection is a project carried out in an urban context at a preschool. These, in summary, are the main useful elements for its understanding:

Introduction (Context and needs)

Physical space:

The Kindergarten School is squeezed between busy connector streets, artisan hub and dormitory neighborhoods. It is devoid of a courtyard and neighboring “greenery.”

The interiors are unsuitable to accommodate expression and exploration of play/body movement.

Going outside the walls: never practiced because, “The school has no courtyard and no greenery outside either.”

Mental space:

Increasing difficulties referable to the prerequisites of attention/listening, emotional self-regulation and structuring of space/time, thought and gesture are observed in children.

The disconnect between lived life and territory is detected.

Method

The theoretical-practical adopted frame is that corresponding to BEN frame since it offers tools for responding to natural education needs in question

What are BENs?

BENs are those transcultural needs typical of our species that express the primary needs of the global relationship with the environment. Scientific knowledge in this regard indicates how responding to NENs allows for harmonious growth and the prevention of educational and scholastic distress.

What tools?

The scientific and multidisciplinary focus identifies six main NENs to each of which it matches proven operational response tools.

This is a proven and specific methodology of interaction and revival of spontaneous play in order to support the structuring of the prerequisites considered. It makes use of specific parameters for observation, conscious use of space, time and material.

Teachers are expected to receive a specific training and constant team supervision including experienced facilitator shadowing.

Objectives

Going out into the neighborhood for six months, daily, to:

- Enhance the expression and exploration of play/body movement as indispensable educational and preventive opportunities for educational and personal discomfort.
- Facilitate the structuring of the prerequisites considered (attention/listening, emotional self-regulation and structuring of space/time, thought and gesture).
- Enable knowledge and exchange with the territory, its characteristics, and its educational potentials.
- Facilitate the progressive ability of teachers to operate independently (after training and mentoring)

The Project

PHASE 1. From limitation to opportunity. “In my opinion, the most beautiful part of the school is the big parking lot outside!” (Mark, 5 years old)

The huge “empty” space is used only at night by the trucks. The school requests and obtains daytime use for occasional workshop activities.

The group spontaneously evolves the initial motor discharge into spatial organization games first using the white parking tracks, then with chalk offered by the teachers.
All of the project's objective prerequisites are thus activated and trained.

PHASE 2. The unexpected as the origin of children's and adults' research

Finding: a trail of cartons dropped from a truck from the parking lot leads around the corner: where will it go? Who will have made it? How? Why?

Little researchers discover the neighborhood ecological oasis: triggering an interview with oasis volunteers and work is done on recycling, sustainability and volunteerism.

The agreement to use oasis material transported daily to the parking lot by children with use of shopping carts (e.g. boxes, rubber tubes etc.) is born: now it is possible to do symbolic play and invent stories by transforming themselves and transforming the three-dimensional space.

All the project's objective prerequisites are thus activated and trained.

PHASE 3. New unexpected, new learning

Surprise: convenient access to the parking lot is no longer allowed. What to do? "Let's find another way to get there!" The group discovers numerous and nutritious opportunities for motor experimentation by proceeding for 30 minutes in "parkour" mode among benches, walls, bollards, bumps, grates, and gates scattered along the way: a rich and fruitful sensorimotor game is born that they love to repeat for weeks.

All the objective prerequisites of the project are thus activated and trained.

PHASE 4. Learning to dare is contagious

Teachers ask, "you have discovered the pleasure of discovery: what other places would you like to discover?" The group replies, "let's go to the big buildings that look like chocolate chips, let's go see what they look like up close" (dormitory neighborhood). Upon arriving at the site we explore and between the two buildings we discover a narrow strip of grass with plants, bushes and piles of garbage. Knowledge of the neighborhood and its whys is supported. In parallel, an agreement with administrators is requested and obtained: the cleaning of the green strip in exchange for its use for occasional workshop activities. Outdoor "green" in the most familiar terms and spontaneous play among trees, grass, puddles and logs on the ground is born.

All the project's objective prerequisites are thus activated and trained

Outcomes:

All project objectives were fully achieved.

Through the appropriate observational parameters, the following aspects emerge in the urban outdoor experience:

- The psychophysical benefits of experiencing the body in motion arrived physiologically and immediately.
- The structuring of the learning prerequisites in question (attention/listening, emotional self-regulation and structuring of space/time, thought and gesture), on the other hand, needed targeted and conscious work to support and enhance the process according to the practices characteristic of the methodology considered.
- Knowledge and exchange with the territory significantly changed the children's perception of belonging to it, as well as the families' participation in community life.

- After the initial training and 6 months of working in a team, teachers operate independently.

Conclusion

The above-described project is representative of some of Outdoor Learning's main characteristics. First of all, it highlights the idea that in every outdoor space there is an educational potential, therefore rejecting the cliché that identifies outdoor practices as only doable in a "natural" area.

Secondly, but no less important, the connection with the territory is enhanced. Knowing and interacting with it is essential in order to develop a real and concrete participation in community aspects. This raises the awareness on interdependencies on a wider scale (from one's own territory to the world, whereby the reflection opens to the concept of global sustainability).

Moreover, worthy of note is the maieutic approach with which the teachers guided the children's research process. Although this is neither an invention nor a prerogative of Outdoor Learning, it is certainly a distinctive feature to which we can attribute the added value of declining adult-child interaction on the preferential plain of action and corporeality.

Nonetheless, however, there is much more worth emphasizing:

What has been considered so far finds significant depth in the theoretical-practical framework of BEN (the Natural Educational Needs) as it is able to provide awareness of child functioning precisely with respect to the dimensions of action, corporeality and global relationship with the environment. As previously mentioned, I have defined Natural Educational Needs as those laws and needs of biological and species-specific origin that regulate child growth and learning. These scientifically-proven laws, correspond to specific needs of the educational relation and the relationship between the human body and the space. They matter to us since, as demonstrated, if corresponded they orient the person and learning toward harmonious growth/development. On the other hand, in case they are not corresponded adequately, we encounter the growth disharmonies typically represented by many learning difficulties and/or educational distress often not certificated/certifiable.

Thus, the understandings offered by the six BENs allow the project outcomes to be read with depth of meaning and offer scientifically proven functional explanations, mainly concerning:

- The experience of the body in movement as indispensable for the structuring of the ability to think.
- Purposeful interaction in spontaneous play as key to the quality of prerequisite structuration (therefore to the quality of learning).
- Emotional soundness and self-regulation as skills that, by natural law, cannot be independently structured simply through experience, but require the conscious help of the adult educator.

However, this knowledge is only the starting point: knowledge of the child's functioning must be supplemented with the use of specific educational tools that can make it concretely applicable in a targeted and effective way. To educate without having in one's background the necessary tools to do this would, in fact, mean missing a crucial opportunity.

For this reason the theoretical-practical framework considered identifies 6 BENs. Each of those brings together their respective corollaries and observational, organizational (of spaces, times and modes) and revitalization tools for child actions (Carpi, 2024).

It would be a paradox to know the potentials of the child's external environment without fully knowing the potentials of his or her internal functioning. In the shared view, in fact, the educator so

assumes the function of a regulator of the interactions between the nature of the internal world and the nature of the external world of the growing person (Carpi 2017).

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Designing Inclusive Outdoor Spaces: An Advanced University Training Course for Participatory and Sustainable Learning Environments

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A space can be considered educational when it enables those who inhabit it to feel actively involved, to express themselves freely, and to engage in meaningful learning within a flexible and accessible environment that responds to their needs and potential. To foster well-being and authentic learning processes, educational environments must support critical and experiential engagement with knowledge, stimulating curiosity, exploration, and the capacity to ask meaningful questions that activate connections, foster the development of competencies, and nurture relationships between the self and the world - thus becoming truly inclusive and transformative. From this perspective, outdoor spaces emerge as privileged contexts for learning: they enhance communicative and cognitive processes rooted in corporeality (Varela, Thompson & Rosch, 1991; Faggioli & Schenetti, 2023), promote learning through sensory exploration, collaborative inquiry, and active participation, supporting both adults and children in a reciprocal and co-constructed process of growth (Schenetti & Petrucci, 2023). Also, outdoor education and learning practices offer concrete opportunities to recognize outdoor spaces as environments capable of fostering teachers' professional development: contributing to promote well-being (Schenetti, Di Nisio, & Rubat du Mérac, 2023), nurturing reflective and awareness processes (Schön, 1993), and strengthening relationships with nature (Schenetti & Guerra, 2018). In doing so, they support a renewed educational vision grounded in children's rights and sustainability.

In an era marked by global ecological crisis, outdoor education - through experiences in natural and urban environments - emerges as an urgent pedagogical and cultural response. Our contemporary world clearly reveals how human and environmental health are interconnected. International frameworks stress the need to invest in Education for Sustainability (Davis & Elliott, 2024). The United Nations 2030 Agenda for Sustainable Development (2015) and the European GreenComp framework (Bianchi et al., 2022) affirm the central role of education in building sustainable societies, while the World Health Organization (2023) highlights the mental health and well-being benefits of green and blue spaces, reaffirming the educational and social value of access to nature for younger generations and communities. Designing educational spaces that promote sustainability through outdoor practices based on unstructured, natural materials and environments, and through the adoption of experiential and active methodologies rooted in local territory and nature, therefore helps foster environmental awareness, sustainable behaviors and attitudes (Ross et al., 2014), and stronger emotional bonds with the environment, while cultivating biofilia (Wilson, 1984).

Learning and teaching outdoor, through place-based (Smith, 2002) and place-responsive (Mannion, Fenwick, & Lynch, 2013) experiences, allows immersion in real, concrete, and contextual situations where individuals can internalize the fundamental values of life on Earth, the complexity of phenomena and relationships, and reflect on their role in society and the environment, supporting also the development of an active citizenship (Schenetti, Milazzo & Mancini, 2024). For all these reasons, investing in the design of inclusive, sustainable and democratic outdoor educational and learning spaces that embody this pedagogical vision is more crucial than ever. This process,

however, to promote authentic, visible and continuative cultural changes, requires an integrated, participatory, and interdisciplinary approach.

Designing inclusive outdoor spaces

To promote the development of concrete and transformative learning environments it is essential to invest in interdisciplinary training and participatory design that support educational practices rooted in outdoor education and experiential learning. The Advanced Training Course *Designing Inclusive Outdoor Spaces*, developed at the University of Bologna, emerged precisely in response to this need. Promoted by the Department of Educational Sciences of the University of Bologna in collaboration with the Municipality of Bologna and ARPAE Emilia-Romagna, the course saw its first edition in 2023, with the aim of training professional figures capable of co-designing outdoor educational environments, focusing on the theme of inclusion and the rights of children and adolescents. The course is designed as a space for meeting and co-constructing knowledge, aimed at promoting inclusive outdoor educational environments through participatory and collaborative design practices based on an interdisciplinary approach. The primary objective of the postgraduate course - shaped by the research group behind its creation - was to develop a professional profile with expertise in the design of green spaces, able to critically reflect on spatial characteristics in relation to users' needs and collaborate with institutions and other professionals across disciplines.

At the core of this vision lies the essential dialogue between pedagogy and architecture. In recent years, several publications have underscored the growing need to rethink educational spaces by integrating these disciplines within collaborative frameworks—particularly in the redesign of school environments (Castoldi, 2020; Tosi, 2019; Weyland, 2020; Weyland & Attia, 2015). The intersection of pedagogy and architecture represents an opportunity to acknowledge one's own disciplinary perspective and, at the same time, welcome other looks, contributing to the construction of a new shared language that improves practices and nurtures new and innovative emerging reflections. The Advance Training Course responded to this challenge by creating a formative place that fostered interdisciplinary exchange and the co-construction of knowledge, starting from the confrontation born by professionals from pedagogical-educational and technical-design fields who brought their own perspectives, compared experiences and co-developed a new vocabulary with the ultimate goal of activating concrete shared processes of participatory design (Schenetti, Thiebat, & Costa, 2025).

An interdisciplinary and participatory learning journey

Held between November 2023 and May 2024, the course involved a heterogeneous group of 46 participants, including educators, teachers, pedagogical coordinators, municipal green technicians, architects, landscape designers, and urban planners. This diversity, both in terms of training and professional background, was one of the course's key strengths. The interdisciplinary dimension was further enriched by a broad range of invited speakers: pedagogists, psychologists, ecologists, architects, landscape designers, policy-makers, and representatives of local associations. Each contributed their disciplinary lens, helping to build a shared framework for the design and care of outdoor educational environments. In reference to the expectations to the training, and the motivations that led to the course design, there emerged a widespread demand for training on the topic of sustainable educational space design (Dessì & Piazza, 2022) - particularly from educational professionals - along with the need expressed by architects and designers to better understand the real needs of the users of spaces. Meeting these converging needs required a formative context

capable of addressing both the architectural and educational dimensions of outdoor space, while also fostering critical reflection on what it means to educate outdoors from an inclusive and participatory perspective. Addressing this challenge requires a situated reflection on the competencies of professionals working daily in these environments, as well as a critical examination of the historical and cultural assumptions behind adult-centric and frequently exclusionary design models. For these reasons, the course was designed as a multidisciplinary, practice-based learning environment and as a laboratory for collective reflection. Its structure was intentionally designed to foster and promote participation and co-design. In this sense, it may be considered an example of collaborative curriculum design within higher education (Fabbro et al., 2022). Participants co-designed the course itself by bringing their personal and professional experiences into the curriculum, thereby enriching it and expanding the potential for each participant to strengthen their sense of identity through the development of a reflective stance toward knowledge and their place in the world (Bovill & Woolmer, 2019). The result was a curriculum that remained “fluid, dynamic, and open even to conflicting interpretations” (Fabbro et al., 2022, p.85). From a methodological standpoint, the 66-hour course combined active and participatory teaching strategies with site-specific workshops in outdoor and environmentally meaningful locations to support experiential learning. The program included twelve in-person meetings, three online appointments, and two public seminars, breaking the course down into eight interdisciplinary and systemic modules. All planned activities shared a common goal: to build a learning community capable of listening, questioning, and collaborating toward shared design processes. The ability to design inclusive and educational spaces - grounded in multidimensional participation among disciplines, professions, and users - was first and foremost experienced by participants throughout the course itself. Throughout the training, participants were involved in reflective and active learning sessions using Thinking Routines (Ritchhart & Perkins, 2008) to support metacognition and collaboration. These strategies, developed by Harvard University’s Project Zero, aim to make learning processes visible and collaborative. Applied consistently across sessions, they helped participants engage in professional exchange, activate critical reflection, and heuristically track the evolution of co-constructed thinking over time. As Mughini and Panzavolta (2020) highlight, such routines, when embedded in the learning community, encourage deeper thinking and shared meaning-making. At the end of the course, participants engaged in collaborative co-design processes to develop group-based Project Work. This final phase fostered reflective practices that started at an individual level and evolved into shared, participatory designs (Deluigi & Marino, 2023). The course aimed not only to train the participants themselves, but also to empower them to create real and effective change in their own communities. By concluding with the development of Project Work, the training supported the translation of learning into action. The 46 participants formed six interdisciplinary working groups, each of which focused on reimagining and transforming a specific educational outdoor space. The methodological framework guiding these final projects drew on both Problem-Based Learning (PBL) and Project-Based Learning (PjBL), aligning with the participatory and co-design approach embedded throughout the course. The resulting projects demonstrated the centrality of interdisciplinary dialogue and community involvement. Specifically, the six projects can be grouped into three main outcomes: (1) transforming outdoor areas from gardens into experiential educational spaces; (2) redeveloping spaces to promote nature-based sensory activities aimed at inclusion and socialization; and (3) renovating degraded outdoor spaces to support outdoor learning through the integration of natural elements, furniture, and equipment that promote interaction and collective responsibility.

The evolution of participants' thinking

To better understand the transformative potential of the course, empirical research was conducted throughout its course, focusing on the evolution of participants' thinking in relation to the activated proposals, lived experiences and tools used during the course. The study adopted a qualitative approach grounded in empirical phenomenology (Tarozzi & Mortari, 2010). Rather than limiting itself to a simple ex-ante/ex-post satisfaction survey, the research sought to deepen the understanding of how participants learned and developed their thinking within the course. In particular, it explored the expectations, modes of competence acquisition, and the ways these evolved over time (Bocci et al., 2021). The data collected involved all 46 participants in the 2023/2024 edition of the Advanced Training Course, including a variety of sources: photographs, autobiographical narratives, written and audio-recorded reflections, responses to two open-ended questionnaires administered at the beginning and end of the course, and responses to the proposed Thinking Routines (Ritchhart & Perkins, 2008) used during the course also as research tools to capture metacognitive processes and the co-construction of meaning. The analysis followed a discover-oriented inductive logic, valuing the units of meaning and categories emerging from the experiential data. The findings highlighted several key outcomes. First, the course effectively fostered a shared design culture among professionals from diverse disciplinary fields - pedagogical, architectural, and environmental - supporting the development of a common language and collaborative mindset. Second, the learning environment promoted the acquisition of new skills and perspectives through dialogic, user-centered, and reflective practices. Third, the experience reinforced the understanding of co-design as a transformative and participatory process that values listening, inclusion, and the active involvement of users - especially children - in the reimagining of outdoor spaces. Finally, the immersive dimension of the training, supported by natural settings, group work, and active methodologies, had a significant impact on participants' engagement and professional growth. Thinking Routines, in particular, were instrumental in making participants' thought processes visible, enhancing reflexivity, collective sense-making, and deep learning throughout the course (Mughini & Panzavolta, 2020). Overall, the qualitative analysis revealed a plurality of transformative trajectories. A common thread running through the narratives is a deep awareness of the pedagogical and social relevance of outdoor educational spaces, as well as a recognition of the value of active participation and collaborative design as generative tools for learning. In this sense, the research findings highlight how a training programme grounded in an experiential approach can activate meaningful processes of transformative learning among participants. Experientiality did not merely function as a methodological choice but as a true epistemological framework: the direct contact with spaces, the opportunity to work in groups on concrete proposals, the dialogue among different design visions, and the tension between real constraints and imaginative projection all fostered a situated, embodied, and dialogic learning process; a generative context for shifting perspectives, for reorienting educational thinking, and for redefining one's professional identity as future educators and designers capable of improving the quality of learning environments.

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Breaking Barriers – facing facts and fakes dealing with Diversity and Inclusion in Outdoor and Experimental Learning

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Disability, Handicap, Impairment:

What image comes to mind when you think of a “disabled person”? What thoughts are associated with it? We're talking about diversity. We think of weakness, being out of balance, dependency, exclusion, a lack of opportunities, pain, anxiety, insecurity, medication, special needs, barriers everywhere... These ideas are part of the realities that surround people who carry the label “disabled!” However, there are countless abilities and strengths, even among people with disabilities, and – just like among people without specific disabilities – there are a variety of ways of perceiving and learning.

There is no such thing as “the disabled”! For each individual, “disability” is a sum of facts and fakes. In addition to the inescapable facts (which result from the causes and actually complicate the processes of movement, coordination, stimulus perception, stimulus processing, language, affect, and stimulus response), there are many factors external to the affected person that conjure a label from the actual cause, a powerful “metaphor: Disabled!”

The consequences for the development of a self-image in just two key points: increased social dependence (M. HAHN), learned helplessness (SELIGMANN).

As facilitators of the development of young people with various learning difficulties and life difficulties, we are aware of this danger and work to create situations that feed their self-image with experiences of success outside their comfort zone, with flow experiences, and with the creation of a diverse subculture, inspired by “The Ecology of Human Development” (BRONFENBRENNER) and with the goal dimension “Inner Stability in Active Life” (MOOR). Images of memories filled with self-efficacy, belonging, shifted boundaries against the power of the “metaphor: Disabled...”

Nature:

What images come to mind when you think of “nature”?

At our 2019 EOE conference in Ireland (Diversity & Inclusion in Outdoor & Experiential Learning), Lynn Anderson summed it up perfectly in her keynote speech: **Nature Heals**. At our last conference in Marburg (2022 - Childhood & Nature), Jule Hildmann underscored this insight with an impressive review of the findings of all possible scientific studies from the 3rd millennium AD.

“The shortest definition of experiential education: It is a transformation of space, time, and community.” (Werner MICHL) Going on a journey, going outdoors: These are important steps that we include in the “Experience & Learning in the Yearly Cycle” curriculum.

What happens when you think of Breaking Barriers together with the dimensions “space” – “time” – “community”? “Uneven, the elements, up and down, inside/outside, cold/freezing cold...” – “Distant and planned future, planned and spontaneous present, experienced, remembered, narrated past; seasons, day and night” / “Do you remember: dew, rain, ice, heat?” – “Individual being, family, horde, class, traveling companions, tribe, nation, species in focus, all species...”

Access to nature for all

The terms “disability” or “handicap” encompass (or rather, exclude) one half of the universe - it is not possible to have a precise plan for every single person and for every single type of disability. There is a huge range. So - what can we learn about this?

First: “attitude” Or: approach. Regardless of the type of disability a person lives with, it's usually a question of the time we have and a question of expectations about what should be achieved at that time, an hour or a day. Your students/pupils/guests will leave their “comfort zone” and enter an “open situation” – an unfamiliar space, a different environment, a different schedule, unfamiliar people. They will come with open minds, but very differently: Some will be very curious, insightful, and they will ask you about everything you know – but perhaps completely unfocused; Some running around, some shy, some talking nonstop, some stressed by light, flies, wind, noises, your dog, heat, cold – some may have just left their very small, intimate world (and it's very good for everyone to find and navigate such open situations – it helps us grow personally!)

Your challenge: Stay calm, rely on your strengths, and remember what you have to offer – what do you want to show? Access to a piece of nature, no excessive expectations. If we are simply open to gaining a few new experiences, we will find “gems” – such as slowing down and team spirit. You can choose anything from the spectrum, from basic, physical-sensory approaches to cognitive-informative knowledge transfer. The task is to shape the scope, pace, and language so that it is understandable.

Some basics:

- Before: They should have taken care of their toenails (help them avoid unnecessary discomfort, any kind of pain); tell them what they need to bring before they head out to meet you.
- Make sure someone focuses on documenting a few important moments, either as photos or videos, to preserve these moments and include them in their biography work. Everyone else should be exempt!
- Special needs: Ask them what YOU need to do. Tell them that THEY need to prepare for their special needs, for medication (a cooler bag), for emergencies (epileptic seizures, first aid kits, exchanging important phone numbers in case of an emergency), for transportation (shorter or longer distances, transportation assistance, horse-drawn carriage, etc.), breaks, and drinks (drinking water).

- Upon arrival: Provide clear orientation – have everyone line up in a rope circle to welcome them; show them where to put their backpacks; and show them the way to clean, accessible restrooms.
- Regarding accessibility: Nature isn't inherently wheelchair-friendly, but it challenges our creativity and our team spirit to go as far as we can with the group so that they can have the experience you want to offer them.
 - Safety first!
 - One for all – all for one: Together we are strong!
 - Respect nature! We are guests in the habitats of other beings.
 - Every risk is voluntary!
- Reflect on what you have: people and what is possible for them, what is available in nature, places, your skills, mobility options, accessible distances, time frame, etc. Make a choice. Less can be more. Sometimes it's enough to have time at all.
- Spend time in your space and “stand with the herd”, observing and following the impulses: Time outside works even without a packed agenda.
- Focus on the interest of the group (that is, your team and the participants) and the interest of individuals. It's not about fulfilling a curriculum, and it's not possible to meet all expectations.
- Choose the subjects and methods based on needs, special requirements, safety, and potential complexity.
- Expect to deal with rapidly changing needs and circumstances, with surprises, rising emotions, conflicts, and schedules that don't work out – offer "slow motion" and "fast motion," slow and dynamic moments if the group is very diverse.
- If people felt and pushed their boundaries, tell them that this was something special to remember. Ask your guests about their particular concerns and interests and consider which methods can best provide them with experiences.

The following list includes many methods that don't represent "access to nature" alone, but they may come together in some combinations:

- Discovering myself in gender-conscious groups: Girls' group “Lady Power”, boys’ group “BoyGroup”, mixed-gender experience groups.
- Discovering my lifetime: Personal future planning; biographical work; D.I.E.: (Drama in Education) Stage Manager of my Dreams; storytelling; rhythms of activity and rest; future – present – past; experiencing – remembering – narrating; rising before dawn; hiking at night; ...
- At work: Engaged, active, meaningful living; the intelligence of the hands; roles, companions; things, tools, materials, purpose/place/rules/value... practical exercises; Work projects (e.g., forestry work, working with basic materials: filling potholes,

planting trees, harvesting apples... “The Reporter”: interviewing people and writing about them for magazines... local initiatives like “Mobil mit Handicap”: experiences and suggestions for improving accessibility in your area. Planting a garden, living with animals...

- Human-artistic expression: Theater, dance, music, poetry, painting, photography, filming, technical solutions... Land Art, geocaching...
- Experiencing the neighborhood: Arrangements for “World Days”, journeys through everyday life; “City Bound”/“Outward Bound”: experiential education in the city / outdoors; experiencing community; getting involved / being there.
- Encountering other ways of life/worlds: Animals, plants, lichens, fungi, microorganisms, streams, rivers, sea, moors, forests, steppes, deserts... Shepherd life, fishing life...
- Being outside: Gain experience: materials, elements, weather, contexts, seasons: heat and cold, dryness, frost, sun and shade, rain, ice and snow, and everything in between, distances, speed, thirst and hunger, quality and condition of equipment and preparations.
- Living outdoors: At all times of day and night, in all seasons, with fire, hunting, fishing, gathering (firewood, berries, mushrooms, leaves, roots, herbs, fruits, etc.) and taking advantage of nature's gifts; building: a shelter, a toilet, a shower, solutions for cooking, cooling, sleeping, etc.
- Above and below ground: Rock climbing, tree climbing, bouldering, balancing exercises; Exploring caves and grottos In a prepared, challenging environment: Obstacle courses, climbing walls, high ropes courses, low-rope elements, tactile trails (blind and barefoot), zip lines – also for wheelchair users...
- Problem-solving tasks: Orientation; cooperative games, starting a fire, making a meal with minimal resources... Transporting water from a spring. Building camaraderie with the slowest. Adapted sports: Wheelchair bocce, archery, rollerball, e-hockey, e-football, ball-over-the-line,...
- Locomotion: Rolling and riding any type of vehicle – moving yourself or being moved: regular or special bicycles, rollfiets, Protrek hiking wheelchairs, tandems, e-bikes, with horses, in horse-drawn carriages... With simple accessories, with special accessories...
- Being on the move. Following a river, a valley, up a mountain, over a range, from A to B to C, from family to family, walking over a bridge...
- By the water – (pantha rhei – everything flows): Experiences of water and the bottom of water: streams, springs, rain, puddles, dikes, banks, embankments, beaches, rocks, coasts, ebb and flow – approaching, observing, analyzing, appreciating life and sustainable living. Cleaning a beach. Building a raft, experimenting with water testing...
- Carried by the water: Rowing on a lake, experiencing the sea, moving with the tide – steering on a river (in a canoe, in a rafting boat), searching for living creatures along the coast at low tide, sailing with the wind (sailing), swimming, diving, being pulled across the water by a speedboat in a rubber dinghy – all in one boat; also having fun on board.

- In the air: Team lifting in the high ropes course, tandem hang gliding, tandem parachute jumps, gliding, ballooning – flying a kite, watching birds in flight, sky cinema, cloud cinema, bird cinema, bat cinema, star cinema –
- Far away: Traveling to a foreign world – foreign language, writing, money, climate, foreign behavior, different customs: contrast experience; airplane, ferry, public bus, driving on the left...
- Magical moments: Benefiting from “open situations”; solo experiences; traveling without having booked an overnight stay; encountering rare animals in person... Problems solved in open situations! Silence. Feeling the power of a place, breathing the spirit of a place, perceiving twilight, magnetism, gemstones, mastering fire, silently lingering by the fire into the night, embers, smoke, ash – light and shadow, air movement, scents, memories, community, song, music – perceiving, naming, expressing, and appreciating feelings – enjoying community, place, and time in a different way...

Please add whatever you can – this is not an exhaustive list; these are just thoughts, examples, and suggestions. Your place, your experience, and your people will bring entirely new ideas and perspectives – follow them and add whatever will contribute to the success.

At the origins of open-air schools in Italy: Outdoor Education teaching practices and the renewal of teaching professionalism

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Nowadays, Outdoor Education is a prominent topic in educational debates and policy proposals, often regarded as a form of pedagogical innovation. However, its roots are both deep and widespread across time and space. Indeed, the centrality of nature-based education is a recurring theme in the works of classical educational theorists, including those concerned with both formal and informal education settings (Bortolotti, 2019; Bortolotti, 2024; D'Ascenzo, 2018; D'Ascenzo, 2022b; Farné & Agostini, 2014; Humberstone, Prince, & Henderson, 2015; Schenetti, Salvaterra, & Rossini, 2015). Yet, it is well known that European school systems have historically favoured a predominantly indoor model of primary education. This model typically involves a classroom setting with rows of desks oriented towards a teacher seated behind a desk on a raised platform. The teacher's role primarily being that delivering instructions verbally, using textbooks, assigning written exercises and homework, and, above all, "supervis[ing] and punish[ing]" (Foucault, 1975) within a rigid framework of authoritarian discipline aimed at controlling both minds and bodies. This indoor setting has been favoured precisely because it allows for greater control by the teacher (Dussel & Caruso, 1999).

In the early 20th century, however, open-air schools began to emerge worldwide. Initially designed for frail, sickly, and tuberculosis-prone children, these institutions were promoted by physicians and hygienists who sought to enable these vulnerable pupils to access education despite their health conditions. Traditional schools, with their rigid structures, would have excluded such children or caused them to fail due to their inability to cope with the demands. Alongside doctors, municipal governments, the Red Cross, and forward-thinking educators contributed to the establishment of these schools, often located in forests or gardens (Châtelet, Lerch, & Luc, 2003; Châtelet, 2008).

The first open-air school was founded in Germany in 1904, and others quickly followed in countries such as Spain, the United Kingdom, Sweden, France, the United States, and South America, each adapting the model in diverse ways. This was a truly international movement, with different names reflecting linguistic and cultural contexts: *Waldschulen* in German-speaking regions, *open-air schools* in English-speaking areas, *écoles en plein air* in Francophone countries, *escuelas al aire libre* in Spanish-speaking regions, and *scuole all'aperto* in Italy (D'Ascenzo, 2018). In Italy, the first open-air school was established in Padua in 1905, followed by others in Milan, Rome, and across the country. In Bologna, in 1917, the socialist administration led by Francesco Zanardi and the city's education councillor Mario Longhena inaugurated the first local open-air school, naming it after Fernando Fortuzzi.

These schools placed the outdoor environment at the core of educational practices. On one hand, they promoted medical and hygienic activities such as sunbathing, heliotherapy, respiratory gymnastics, and general physical exercise to restore lung function, accompanied by medical check-ups and enhanced nutrition under medical supervision. On the other hand, their teaching practices gradually shifted from a traditional, transmission-based model to a more dynamic and flexible approach that fostered student engagement and activity. Immersed in the greenery and fresh air, outdoor spaces offered new learning opportunities through direct, experiential contact with nature—

trees, plants, animals—which initially arose spontaneously but became increasingly structured and guided. These practices encouraged learning “from life,” interweaving scientific and disciplinary knowledge across subjects such as history, geography, mathematics, geometry, drawing, and the natural sciences.

Particularly noteworthy were the activities involving gardening and horticulture, as well as the presence of domestic animals, which became subjects of scientific investigation and language development through both individual and group descriptions and narratives aligned with the National Curriculum. Numerous teachers and observers reported on the innovative nature of teaching practices in science and other disciplines. In 1919, Argia Mingarelli provided a vivid account of Outdoor Education in the sciences:

Everything is studied in real life. Animals, plants, minerals—in botany especially, pupils in outdoor schools are little scientists. At first, when faced with an unfamiliar flower or insect, they would ask the teacher: ‘What is it called?’ This is no longer the case. Now, holding the unknown in their hands and looking like miniature researchers, they rush to say: ‘Give us the books—we want to identify this flower, this insect.’ And so they browse, compare, and discuss, gathered around the mysterious specimen and the all-knowing book, and then... eureka! They rush over to announce the discovery, before setting off in pursuit of new ones. (Mingarelli, 1919, pp. 178–179).

A scientist, writing about Outdoor Education in Bologna, also emphasized the value of direct observation in science learning:

In Botany, perhaps more than in any other sciences, the field is filled with specialized terminology that is not easy to retain. It is a mistake to insist too much on it, especially at the beginning. Plants should be used for direct observation as soon as possible. Allowing children to hold plants in their hands, to study and examine every part, transforms yawns into cries of joy at the discovery of some interesting characteristic. (Sclavo, 1924, p. 25).

These new outdoor educational approaches also led to the innovation of teaching tools—for example, the invention of the portable outdoor desk (D’Ascenzo, 2023)—and to the development of an entirely new pedagogical model. This model was inspired by Outdoor Learning, Adventure Education, and Place-Based Learning, and promoted democratic forms of self-governance that encouraged both individual and collective responsibility. It was precisely the shift in the educational setting—from indoors to outdoors—that enabled adventurous explorations in forests, hills, or along beaches (as in seaside outdoor schools), as well as educational outings in urban environments to discover factories, museums, and monuments subject to cultural and historical inquiry:

The study of History and Art is essentially the study of Rome. The school organizes preparatory walks for specific topics. Pupils’ learning begins with sample explorations or field trips, assigned in small groups, outside regular school hours. Hence the many visits made independently by students, without the teacher’s knowledge, to discover Rome. (Lombardo Radice, 1928, p. 38)

This evolution slowly brought about a profound transformation in teaching professionalism (D’Ascenzo, 2020b). Several teachers provided written accounts of their experiences in open-air

schools, rejecting the notion that children could not concentrate outdoors. On the contrary, they observed that students were often more engaged, curious, and participative than in indoor settings:

A common objection to outdoor schooling is as follows: children need quiet in order to learn, and this cannot be achieved outdoors; there are too many sensory distractions that prevent concentration on the teacher's words or materials. This objection is unfounded, primarily because it assumes that children can maintain attention for the entire school period [...]. Since I started adopting the regime of walking and outdoor classes, attendance has improved. Those who were previously disengaged or truant are now the first to show up. And why would they choose to leave school? (Fratus, 1914, p. 160)

Similarly, Alfredo Bajocco, reflecting on his own professional transformation, questioned whether his pedagogical evolution was due to Outdoor Education or whether it would have occurred regardless:

When I oversaw the Roman open-air schools, I was not well acquainted with new teaching methods; but they were latent within me as an educator. Perhaps if I had remained in a traditional classroom, I would have continued in the same way, despite an unbearable sense of spiritual discomfort. But the school garden, the increased contact with nature—something I have always loved—unconsciously led me toward new methods...The theorist might argue: 'Do not be deceived. Place a teacher outdoors, and he will teach exactly as he did indoors.' That is true... to a point. And I say this from experience. (Bajocco, 1951, p. 73; D'Ascenzo, 2022a).

The available space does not permit an in-depth exploration of the many accounts provided by teachers in outdoor schools regarding the transformation of their educational professionalism. However, a common thread emerges across these testimonies: a heightened awareness of the natural environment and the socio-cultural landscape as extraordinary educational resources. These educators also consistently highlight the changes observed in their pupils, who are no longer passive or disengaged, but instead deeply involved and enthusiastic participants in learning activities. Outdoor education in primary schools has thus historically demonstrated the potential to foster a shared sense of well-being among both pupils and teachers, who become united in a mutual desire to learn together. This collective dynamic underscores the pedagogical value of outdoor settings not only as physical spaces, but as catalysts for meaningful educational relationships and processes. In this regard, I argue that recovering the historical dimension of outdoor schools and outdoor education is essential—not only for the purposes of educational-historical research, but also to counter the misconception that outdoor learning practices are a wholly recent innovation. A historical-educational perspective can serve as a valuable foundation for the development of contemporary educational projects. By drawing on past experiences, educators and policymakers can renew current and future teaching practices with greater intentionality and awareness.

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Who's Afraid of the Digital Media in the Outdoors?

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Introduction

The intersection of outdoor education (OE) and digital media is a topic frequently met with ambivalence and controversy within pedagogical discourse. Traditionally, OE has emphasised direct, sensory experiences of nature, skill development for outdoor self-management, and personal and social growth, positing these as the cornerstones of the field. However, modern technological advancements have profoundly influenced people's engagement with nature, introducing new complexities. This challenge is encapsulated by the “double-edged sword” metaphor, referring to the wide-ranging impacts and affordances of contemporary technology. While some scholars caution against the potential erosion of direct and meaningful engagement with the natural world, others recognise the considerable benefits that digital tools can offer to outdoor learning experiences.

The contribution aims to explore this ongoing debate, providing a comprehensive literature review that highlights both the benefits and pitfalls of integrating mobile technology into OE. It then narrates a practical workshop that took place during the EOE conference in Rimini in April 2025, which serves as a tangible example of engaging with these complexities. The workshop, designed to move participants beyond a binary “good” or “bad” perspective, encouraged critical reflection and hands-on experimentation with digital tools in an outdoor, urban setting. Ultimately, this exploration seeks to foster a deeper understanding of how intentional and adaptive strategies can leverage digital media to enhance experiential learning, cultivate environmental awareness, and equip learners with essential competencies for navigating an increasingly postdigital world, particularly in the context of environmental sustainability.

The Enduring Debate: Technology's Role in Outdoor Learning

A substantial body of literature raises concerns about incorporating technology into outdoor experiences, often portraying it as a detrimental force. Van Kraalingen's (2021) systematised review identified extensive evidence that technology can diminish the quality of engagement with nature, making experiences more consumable. Conover and Conover (1995) and Strong (1995) argue that increased comfort facilitated by technology detracts from the raw, unmediated contact with nature crucial for authentic learning. Similarly, Cuthbertson et al. (2004) caution that if our encounters with nature are mediated primarily through devices, profound direct engagement may be lost.

This anxiety is reinforced by Louv's (2005) concept of “nature-deficit disorder,” which suggests that technology exacerbates the growing separation between young people and the natural world. Increased screen time and sedentary lifestyles have been linked to physical, emotional, and mental health issues, making restorative experiences in nature ever more important. Smith et al. (2018)

report that students disconnected from devices during a study abroad programme demonstrated enhanced immersion, stronger peer relationships, and greater personal growth, highlighting the potentially disruptive effects of technology.

Practical challenges compound these concerns. The use of mobile technology demands specific skills, with teachers' competencies and students' proficiencies varying significantly. Equipment failures such as drained batteries or poor connectivity can disrupt activities, fostering dependency that conflicts with outdoor education's emphasis on autonomy and self-management. Technology can also act as a barrier between learners and their environment, diverting attention from holistic, sensory experience. Questions of access and equity further complicate matters, with the cost of devices creating uneven opportunities.

Psychologically, the constant connectivity promoted by digital tools contributes to "technostress," anxiety from disconnection, and a sense of obligation to respond, which obstructs solitude and reflection. Over-reliance on virtual communication may weaken face-to-face skills and foster loneliness. In academic contexts, mobile devices frequently introduce distractions through social media and other non-educational uses. Many students also experience frustration or withdrawal symptoms when first deprived of constant access, reflecting the conditioning of digital immersion.

Yet an emerging body of literature also highlights potential benefits of technology in outdoor education. Walter (2013) suggests that while young people need to reconnect with nature, digital tools can enrich the experience through photography, interactive applications, or gamified activities such as Geocaching. Van Kraalingen (2021) notes that technology can increase motivation and engagement, particularly among children, offering playful and interactive ways to explore. Mobile tools can provide instant information, location-specific prompts, and opportunities for reflection that deepen learning.

Furthermore, digital applications support data collection and Citizen Science initiatives, enhancing participants' scientific literacy and critical thinking. Technology also enables documentation of experiences through photos, videos, and online journals, helping learners to organise and disseminate knowledge. For digitally oriented learners, outdoor challenges may even mirror the appeal of simulation games, but with added richness provided by physical activity and natural unpredictability.

In this shifting landscape, boundaries between digital and non-digital spaces are increasingly blurred. As Jandrić et al. (2018, p. 893) observe, digital technology is no longer separate or "other" to human and social life. This "postdigital condition" complicates binary thinking, positioning technology as an integral element of contemporary reality, even in outdoor contexts.

Moving Beyond Dichotomy: The Postdigital Lens and Strategic Integration

Given strong arguments on both sides, consensus on whether technology benefits or hinders outdoor education remains elusive. A postdigital perspective therefore offers a valuable framework, recognising the entanglement of digital and non-digital realities. Reed (2022) describes outdoor education as a "postdigital assemblage," continuously shaped by learners, educators, socio-cultural contexts, infrastructures, and the wider ecological and political environment. Such assemblages include the technologies in use, the infrastructures that support them, and the "never off" digital backchannels such as social media. This perspective acknowledges that educators cannot fully control how these socio-technical systems influence experiences. Instead, it demands an "entangled pedagogy" that embraces complexity rather than resisting it.

To navigate this complexity, Van Kraalingen (2021) proposes three strategies:

1. Mitigation – restrict technology use to situations that clearly align with pedagogical aims, avoiding its normalisation.
2. Intentionality – define and communicate the values and purposes underlying technology use, moving beyond pragmatic adoption.
3. Adaptation – integrate mobile tools through creative, interactive activities such as digital journals or photography, while fostering reflection to connect digital engagement to curriculum outcomes. Crucially, learners should continue to develop independence outdoors without reliance on devices.

This aligns with Feenberg’s (1991) “critical theory of technology,” which calls for case-by-case evaluations of technological practices, weighing both risks and benefits. Such an approach ensures that technology functions as a supportive tool without undermining the fundamental purposes of outdoor education.

The Workshop

To practically explore these complexities and strategic integrations, the workshop “Who’s Afraid of the Digital Media in the Outdoors?” was developed and conducted. The workshop took place in the urban park “Parco XXV Aprile” in Rimini, Italy, over a 90-minute session with 25 participants.

The session commenced with an Icebreaker activity. Participants were asked to physically position themselves along an imaginary line between two “extremes” (represented by trees) in response to various questions. These questions probed their passion for outdoor activities, enjoyment of Italy and local food, age of people they typically work with in outdoor settings (children vs. elderly), and self-perception as “boomers” concerning technology use. A critical question during the icebreaker directly addressed the core theme: “Are you in favour of using digital media in outdoor activities?”. This initial positioning served to immediately highlight the diverse perspectives within the group.

Following the icebreaker, a debate was proposed. Participants were divided into two groups: one advocating for the enthusiastic use of digital technology in OE and the other against it. Each group was given a maximum of 5 minutes to prepare their arguments, with the “no” group using paper and pencil and the “yes” group using their own mobile phones for note-taking and reference, subtly reinforcing the very debate at hand. The debate involved alternating 1-minute statements from each side, fostering a dynamic and concise exchange of viewpoints. Interestingly, many participants did not have extreme positions on the issue, thus they were all able to understand and acknowledge the various pros and cons involved and to produce an interesting and deep debate.

Next, the workshop transitioned to the practical use of digital media in the outdoors. Participants divided into four smaller groups of 5-6 people, each tasked with using a specific digital application for an outdoor activity:

- Google Maps: Groups were instructed to map 5-6 favourite, hidden, or unusual places within Rimini’s city centre, saving them as a shared list. This activity encouraged geographical awareness and exploration using digital mapping tools.
- Camera: Groups were challenged to capture the combination or blend between “natural” and “human-made” in their surroundings, taking two photos each and providing a title for at least one. This fostered creative observation and digital documentation.
- Google Lens: This group used Google Lens to photograph and search for information on at least five different elements of flora or fauna they could find while walking around. This promoted scientific inquiry, identification skills, and immediate access to information.

The group divisions were based on participants' preferences, potential utility, perceived challenge, or personal interest in learning specific skills. To document these experiences, the role of videoreporter was assigned to one participant per group. Their role was to create micro-videos to document the group's activities.

The workshop concluded with a debriefing phase, where each group summarised their activities in 2 minutes and presented their micro-videos to the wider group. While sharing the experiences, a discussion was encouraged to invite participants to consider again the debate on the use of digital tools in the outdoors and to enrich it with new thoughts and reflections arising from the practical experience.

This workshop exemplifies an adaptive approach to technology integration, intentionally designing activities that leverage digital tools to enhance engagement and learning in an outdoor context, while simultaneously fostering critical reflection on their appropriate use and potential drawbacks.

Conclusion

The discourse surrounding digital media in outdoor learning is characterised by a necessary tension between the proven benefits of unmediated nature experiences and the undeniable ubiquity of technology in contemporary life. As the literature demonstrates, arguments for and against technology's integration are compelling, highlighting its potential to either diminish genuine engagement with nature or enrich experiential learning through new avenues for exploration, data collection, and collaborative inquiry.

Moving beyond a simplistic dichotomy is crucial. A postdigital perspective, which acknowledges the inherent entanglement of digital and non-digital spaces, offers a more nuanced understanding of how learners interact with their environments. Strategies such as mitigation, intentionality, and adaptation provide educators with a framework for thoughtful and effective integration of mobile technology, ensuring that its use aligns with pedagogical objectives, promotes critical thinking, and supports holistic development.

By immersing participants in hands-on activities using various digital tools in an outdoor, urban setting, while simultaneously prompting critical debate and reflection, the workshop demonstrated how technology can be harnessed to deepen engagement, foster environmental awareness, and cultivate essential digital competencies. This experiential model allows participants to personally evaluate the affordances and challenges, moving beyond theoretical positions to an informed understanding grounded in direct experience.

Continued research and practical experimentation are essential to ensure that outdoor learning continues to evolve in ways that are both relevant and responsible in our postdigital age.

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REGEN - Re-imagining Gender in Education in Nature

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REGEN - *RE-imagining Gender in Education in Nature* is an Erasmus + project proposing an innovative research approach between gender studies and Outdoor Education. The project lies on the collaboration of three Forest Schools (Belgium, Spain and Italy), which can be proud of a long experience of pedagogy in nature with children 2 to 6 year old and of Quest, independent European network (Belgium). The exchanges between the three different EU countries' educators, supported by the scientific literature and the observational tools provided by the head researchers, led to a field observation of gender dynamics in children's play and interactions in outdoor environments using Forest Pedagogy. The leading purpose is to contribute to a broader understanding of gender dynamics in these specific contexts, promoting inclusive practices and supporting the work of educators and researchers in identifying gender-related barriers and inequalities.

Since the research project is still in progress, the conclusions are partial to this date (March 2025); it will be completed in December 2025.

The REGEN project started in September 2024, within the framework of the Erasmus + call KA210-SCH.

The specific objectives in support of the general ones are:

- to conduct small-scale research on gender dynamics based on participant observations in the three different outdoor contexts
- to collect data through existing literature and through a survey targeting educators on gender roles and stereotypes in nature education
- to reach a large number of teachers, increasing awareness in decoding gender roles.

Observations were made through a tool developed under the guidance of researcher Selima Negro in October 2024, based on the following research question:

How do gender dynamics manifest themselves in children's play and interactions in outdoor kindergarten environments using the Forest Pedagogy?

Further questions emerged from the comparison between the four partners:

1. Which characteristics (physical, expressive, personal) do children associate with gender?
2. How do gender identity matters emerge in the language used by children?
3. When is gender identity used in social dynamics (e.g. inclusion/exclusion, estrangement)?
4. Do contradictions emerge between family/cultural contexts and the different team's inputs?

Between November 2024 and February 2025, European researchers have been sent to the partners' Base Camps. These experiences led to the opportunity of using the observation tools together, the discussion of its validity and to the sharing of work's dynamics in each Forest School.

During the daily meetings, the team worked on the planning of the next steps:

- literature review and analysis
- elaboration of a questionnaire addressed to schools and organizations involved in Outdoor Education with the research questions in mind
- planning of the online conference scheduled for December 2025

This first step of the research was documented with a short video; similarities and differences between the projects have emerged through the involved educators' interviews and pictures of the base camps.

Partial conclusions

- Boys and girls play all kinds of spontaneous games (see taxonomy of spontaneous games) regardless of gender and no play groups are created based on gender
- Significant tendency emerges on female part for 'nest-building', such as: setting up spaces (beds, furniture, etc.); taking care of the aesthetic result. This intense and continuous play is not precluded to males; however, it has been observed that they are rarely interested to engage in this type of play.
- Some conversations pointed out stereotypes with respect to roles (e.g. housekeeping and beauty are 'women's things', knights or policemen are men's jobs, females have long eyelashes and males' short hair). However, the observations during spontaneous games do not show a real correspondence to these stereotypes as females ride, fight and identifying themselves as policewoman, while males act like mothers and get pregnant.
- Observations during role-play did not reveal any bias on the part of the children regarding 'possible family types': 'traditional' families, families in which one or both parents are absent, homoparental families (in which the role of mothers is also played by males), extended families.

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Place-Based Reading. Literature Teaching Outside the Classroom

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In my Ph.D.-project (Eggersen, 2023b), *place-based reading* is described as a didactic framework and a specific model for literature teaching outside the classroom. The project's theoretical and qualitative studies were carried out with the intent of developing, describing and testing the implementation of place-based reading as a new operationalisable teaching method. The model helps the teacher to conduct teaching that scaffolds and directs the students' bidirectional attention to a literary text in its interaction with a carefully selected place in the school's neighbourhood. To initiate and scaffold this dual attention to the interaction between text and place, the teacher conducts parts of the teaching program in a place that somehow can relate to the text. This is achieved by explicitly reading the text considering the place and by experiencing the place through the lens of the text. This situated reading pays attention to text-place interactions, and thereby it becomes a means through which students can explore and develop their analytical repertoire; a way of relating to one's surroundings, and, parallelly, of encountering literature (Eggersen, 2023b; 2024). The processes of reading, interpretation, and recognition are thus initiated and scaffolded in four steps that combine sensory experience with close reading (see Eggersen, 2023b; 2024), enabling students to learn about literature and the world both *in* place and *through* place, as well as through discussions of the interconnections and interdependencies between text and place. This article provides a concise overview of the key findings and pedagogical implications of the Ph.D. study.

Similar studies

To situate this study within the broader research landscape, three complementary Ph.D. projects are worth noting. As consonant practice and research approaches developed in lower secondary school, the research designs of Pjedsted (2020), Reato (2024), and Laneri (2025) are closely aligned with Eggersen (2023).

Pjedsted (2020) draws primarily on cognitive theoretical frame. Her research interest centres on students' affective engagement and empathetic understanding towards characters in contemporary novels, when the reading takes place, at least in part, in locations comparable to those depicted in the narrative setting. These 'place-oriented' readings emerge as affective, sensitive, embodied, and potentially empathetically engaging approaches. In continuity with Pjedsted's research design and findings, and with Eggersen's didactic model, *Laneri* (2025) investigates how place-based reading can be implemented in rural mountain regions to develop students' local place-awareness through cognitive and emotional outdoor literary place encounters. His intervention program in also incorporates writing processes. *Reato* (2024) studies the educational potential of a teaching approach in which the experience of places - both natural and urban - is interwoven with linguistic experience through outdoor writing practices. This research particularly investigates the poetic and metaphorical dimension of language as a means of expressing the complexity of encounters between students and places.

Theoretical frame for place-based reading

Eggersen's place-based reading model's theoretical frame is constructed through the integration of three broad academic domains: phenomenological philosophies of place (Casey, 1993; Greve, 1996; Merleau-Ponty, 1945/1985); literary topographics (e.g. Moslund, 2010; Ricoeur, 1983), and place-based outdoor education (Bentsen and Jensen, 2012; Gruenewald, 2003a; 2003b). This theoretical synthesis positions the student-readers as someone who, in engaging with the text, come to understand and reflect upon themselves through the recognition that both the reading body and the physical surroundings are integral to literary texts and to the act of reading. When place-based reading is employed, text, place and self are brought into dynamic interplay. Emphasis is placed on the student-readers' embodied presence in the world, on their experience of this, and on their reflection upon it as a phenomenological condition (Eggersen, 2023b, 2024).

Within the philosophical framework of this project, the concept of *place* is articulated along a continuum that stretches from abstract, quantitative delineation to the immediacy of a lived, qualitative and sensuous *hereness* (Casey, 1993; Greve, 1998) – understood as the situatedness of embodied experience within the concrete lifeworld. However, place is not merely construed ontologically as an entity or phenomenon within the world. It is also understood epistemologically, as a mode of world-disclosure and a way of making sense of reality. Most fundamentally, though, place is approached through a phenomenological lens. It is seen as a sensuous and dynamic interface between self and world - a relational field in which perception, embodiment, and meaning coalesce (Casey, 1993; Greve, 1998; 2005). Building on this philosophical foundation, the project also draws on *literary topographics*. Text - place interrelations are here not only seen as mimetic in the sense that narratives take place in particular locations, or that they describe places. Text-place interrelations are also seen as reciprocally creative: places constitute literature, and literature constitutes places, in ways that affect our experience and our awareness of them (Eggersen, 2023b; 2024, Moslund, 2010; Ricoeur, 1983). Finally, *place-based outdoor educational* activities are characterized as “teachers making use of the local environment when teaching specific curriculum subjects” (Bentsen and Jensen, 2012, p. 200). They involve world-oriented, applied, experience-based, and student-involving teaching and learning practices, in “an interaction between outdoor and classroom teaching*” (Ejbye-Ernst, Mygind and Bentsen, 2016, p. 8). Together, Nordic *udeskole* and US *place-based education* are seen as didactic approaches to developing an awareness of the local community as well as, in larger terms, the world outside the classroom. Each of these educational theories builds on an experiential and exploratory educational foundation developed by Dewey (1938), as is evident in Bentsen and Jensen (2012), and Gruenewald (2003a).

Together, these three theoretical domains form a cohesive theoretical foundation for understanding how place-based reading fosters embodied, contextualised literary engagement.

Three empirical testings of the place-based reading model

After the theoretically based designation of the place-based reading model, the method was tested from different perspectives in three empirical studies. *The first empirical study* (Eggersen and Barfod, 2020) was conducted as a small-scale qualitative intervention study (Fraser et al, 2015), addressing the implementation of place-based reading as a didactic approach to literature teaching, asking *how a bidirectional text-place awareness is revealed in students' statements about place-based reading*, regarding *when* it occurs, *how* it emerges, and *what* characterizes it in praxis – seen from a teacher perspective. The findings reveal that bidirectional awareness primarily occurs after

teaching pace-based; it occurs mainly when the teacher is actively scaffolding it; and several divergent interrelations between text and place are seen in the students' readings.

Building on the insights from the pilot study, and likely conducted as a qualitative intervention study, *the second empirical study* (Eggersen, 2023a; 2023b) expanded the scope and shifted the focus to the students' perspective. The purpose of this part of the research was to examine, understand, and explain the potentials of place-based reading. A series of student interviews here provided insight into the procedural and epistemological effects of place-based reading in practice. The analysis reveals that the students describe place-based literature teaching as "fun", "exciting", "troublesome", and "surprising" (see Eggersen, 2023a; 2023b). It also suggests that place-based reading may add a particular time dimension to students' awareness of place that may lead to cognitive activities, such as recognizing and imagining "how things were in the past" in the text and at the place. As one student reflected:

"Reading with an awareness of place means making assumptions about the world; revising those assumptions in response to the text; investing oneself and making oneself available to engage with the world and culture of which one is a part.*"

Another student remarked:

"I got to know my own town a little better. I wasn't aware of all this before.*"

Throughout the implementation of the intervention program, students in various ways expressed a positive shift in their awareness of place. This transformation was particularly evident in a heightened curiosity about the historical dimensions of both place and text, and a sense of surprise regarding the extent and nature of historical events that had occurred locally.

A theory-driven interpretation of these findings suggests that for some students, potentially, place-based reading could bridge gaps between the school's literary programs and the students' own lifeworld by transforming the rather abstract contents of literary history into a more concrete knowledge. Moreover, place-based reading may open for the assumption of a critical perspective on the text and the world. (See further in Eggersen, 2023a).

This altered sense of place also manifested as an increased awareness of the interplay between global and local historical events over time. For instance, when students read texts from the World War II occupation period in familiar places in the neighbourhood they typically navigated with little conscious attention. They began to perceive the proximity of history in a new light. Literature-based activities conducted in situ appeared to stimulate and support this shift in awareness. As one student noted:

"I mean, in terms of history, it happened SO close by. (...) I used to believe that all those terrible things took place far away... but they're actually very close.*"

Students' statements further revealed a dual attentiveness - both a recollection and an imaginative projection - when engaging with place and text simultaneously:

"... you need to use your imagination to figure out that this is where it happened and what it looked like. You get a much clearer picture if you're there, compared to just reading about it in a book*"

These student reflections suggest that the use of place-based reading in teaching may help bridge what the US place-based educationalist Sobel (2008) refers to as “the disjuncture between school and children’s lives.” Multiple dynamics are at play when teaching through place-based reading, and this bridging between the student’s lived experience and the curricular content invites several considerations. Place-based reading can be understood as a pathway to an expanded recognition that history, including literary history, has unfolded in “ordinary”, even rural” places, where students themselves live, read, and learn. Moreover, this pedagogical approach may support a critical dimension (Gruenewald, 2003b) in literature education by challenging students’ somewhat deferential perception that their hometown is insignificant compared to larger urban centres.

The project’s third empirical study (Eggersen, in press, exp. 2026) is interested in how the literature teacher conducting place-based reading curates both text and place in accordance with the aims and learning targets of the instruction. Theoretically, any text may be paired with any place, provided the combination supports interpretation and understanding of the text, or facilitates students’ recognition and learning about literature, culture, and the world. But what kinds of text/place interactions can the literary conversation in teaching revolve around, and what forms of dual attention can be cultivated in practice? When employing place-based reading as a method, the literature teacher must, of course, carefully select both a text and a place in accordance with the aims of the instruction. In this study, I have examined the diverse text-place combinations of two teachers regularly applying place-based reading throughout a school year in their lower secondary classes. The preliminary results show four categories or principles for text-place combinations: Generic, Authorial, Thematic and setting oriented (Eggersen, in press, exp. 2026).

Conclusions

The theory-driven interpretation of the three empirical studies indicates that place-based reading, for some students, may hold significant pedagogical potentials for bridging the often-described gap between literary education and student-readers’ lifeworld. Across these three studies, the method has demonstrated its capacity to foster bidirectional attentiveness, historical awareness, and critical reflection—both in students’ engagement with texts and in their perception of local environments. As such, place-based reading emerges not merely as a didactic tool, but as a new approach to world-oriented literature teaching that challenges the dominant period- and concept-based paradigms in literary education. Furthermore, the findings indicate that place-based reading may serve as a catalyst for critical inquiry into students’ own spatial and existential horizons, thereby positioning literature as a medium through which meaning and value in the surrounding world can be explored. By foregrounding the embodied and situated nature of reading, the place-based reading model invites a reconfiguration of the reader’s role: not only as an interpreter of texts, but as a reflective participant in the interplay between self, place, and narrative.

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Urban outdoor experiences in early childhood

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Urban outdoor experiences in early childhood

The idea for this survey arose from interactions with educators working in the educational services managed by 'Crescere Insieme', a complex and varied Italian educational organisation comprising private, corporate and municipal services. The organisation's intrinsic complexity, arising from the confluence of different cultural contexts, families, and educational personnel, has been a significant source of enrichment and growth for everyone involved in the research process. Against this backdrop, we decided to explore certain aspects of outdoor education in urban environments to ascertain whether specific activities in such settings, which lack the traditional characteristics of wilderness, could offer children distinct advantages.

The qualitative exploratory study

Although the benefits of outdoor experiences in early childhood are widely recognised, little is known about the impact of urban outdoor activities on such young children. This is partly because children of this age rarely leave facilities to explore their surroundings and partly because there is little international literature or scientific research focusing on this new form of outdoor activity for such young children. Our observational and qualitative study emerged from educators' spontaneous observations. In many of our facilities, the choice of urban outdoor spaces was initially driven by an inability to provide adequate stimulation and differentiated experiences in the outdoor areas directly surrounding the facilities. Over time, educators realised that these experiences offered different processes and dynamics to traditional outdoor activities in nursery spaces. What kind of urban outdoor experiences are we talking about? The choice of outings was primarily dictated by the educators' initial assessment of the areas. They carefully selected places and activities that were accessible to all the children. They concentrated their efforts particularly on places that could tell the story of the neighbourhood or city in which the nursery is located and on activities that could encourage meaningful learning for the children (Craig, Nazia Afrin, Muntazar & Umme, 2024). These included outings to neighbourhood gardens and public parks, mornings at the local market or library, walks through the surrounding streets, and occasional special events. During group meetings involving educators from various services in different cities and regions, the educators noted consistent differences in the children's behaviour during outdoor activities in the nurseries' outdoor spaces compared to elsewhere. Therefore, we decided to investigate this difference further.

The construction of the observational instrument

We opted for this research design because qualitative observational tools assume that context plays a pivotal role in shaping behaviour, particularly with regard to repeated experiences. This seemed to us to be a fundamental starting point, given that the focus was on identifying the differences in the benefits of urban and place-responsive outdoor practices compared to traditional outdoor practices. To construct the observation tool, we examined the educators' spontaneous notes on the behaviour observed in the children. We tried to highlight any recurring patterns and grouped them into similar clusters. The analysis showed that certain behaviours recurred with a certain frequency. This led us

to create an observational tool focusing on specific behaviours, such as lateralisation, spatial and temporal orientation, risk-taking behaviour, context-specific vocabulary, cooperation and conflict between children — and, surprisingly, eating habits. As the educational groups were already accustomed to this observational practice within their services, the tool was structured as a logbook of urban outdoor experiences. It was organised according to a longitudinal plan to track changes in the children's behaviour as they gained experience and knowledge. As part of writing the logbook, the educators also used the *anecdotal record* technique, i.e. annotating significant behaviour immediately after it occurred in relation to the purpose of the observation. The episodes to be annotated fell within the aforementioned behavioural categories, and the only subjective element was the choice of which episodes to include. The supervision team then decided whether these were relevant to the purpose of the observation. Educators were provided with a table containing examples of target behaviours, particularly for the initial observations.

Observation duration and urban outdoor experiences

The urban outdoor activities took place over the course of a full academic year and were supported by an observation diary. In line with the different urban contexts in which the educational facilities were located, the children took part in the following outdoor activities responsive to their local area:

- walks around the neighbourhood in which the kindergarten was located;
- visits to the local market to see, touch and learn about fruit, vegetables and food in general;
- visits to local libraries;
- walks in the parks and green spaces around the facility;
- using public transport for longer journeys.

Despite the fact that the facilities were located in seven different regions — some in large cities and others in small towns — all the children had the opportunity to participate in the same activities. A total of 900 children from 30 facilities in seven regions, along with 120 educators, took part in the research. The children involved were aged between six months and three years, and participated in urban outdoor activities at least three times per week. The homogeneity of experience within a context of inhomogeneity enabled us to consider the generalisability of the various observational recordings during our final evaluations. We concluded that these experiences had played a comparable role in promoting the emergence or increase of certain behaviours in all children. At the end of the academic year, we conducted a narrative analysis of all the logbooks and transcripts in order to better understand and interpret the observations of interactions, behaviours and situations.

What we found out

In particular, the collected data enabled us to compile a series of observations related to outdoor urban experiences and place responsiveness. We observed an improvement in lateralisation development in the children, particularly in their ability to associate verbal input (right/left) with behavioural actions and verbal output with motor actions. They also became more adept at providing spatial cues, using lateralisation as an additional criterion. Over time, the children's spatial and temporal orientation improved considerably, as did their spatial-temporal organisation within the nursery. They acquired the ability to recognise roads, anticipate which direction to take and estimate the duration of a route or how long an activity would take roughly.

Based on the narrative analysis of the dialogues, we observed an increase in questions and verbalisations concerning direction, place of arrival, landmarks along the route, route duration, and time elapsed from departure to destination, from both the children and the educators. Regarding risk-taking behaviour, the children demonstrated an increasing ability to independently assess the

risks associated with certain behaviours and/or activities. They even went so far as to foresee potential consequences and verbalise them in advance to the educator. The number of safer alternatives that the children could list and implement increased, as did the number of verbal suggestions for carrying out risky activities during their conversations ('Put your foot there instead of there'). With regard to peer interactions and relations, observations consistently reported a reduction in conflicts between children over time, partly due to the lack of material objects to contend with. There was also an increase in collaborative and cooperative behaviour, not only with regard to providing material assistance with an activity. Indeed, we observed an increase in emotional support behaviour among children in potentially risky or frightening situations, such as thunderstorms. There was also an increased tendency for small groups to collaborate in finding solutions to minor mishaps or accidents. Outdoor experiences in urban environments fostered a greater sense of connection and unity among the children with regard to the potential dangers of the environment. This modified their usual relational dynamics and reduced conflict. Linguistically, the children's vocabulary expanded spontaneously to include more specific and context-specific terms, as evidenced by the increased complexity of their linguistic interactions with each other and with adults. In particular, terms relating to direction ('after the curve'), the position of objects within a space ('near/far'), and the names of plants ('plane tree', 'oak tree') and food ('codfish') appeared. This enabled the children to differentiate between known objects in greater detail (e.g. 'that's a codfish'). One surprising result was the small variations in eating habits. Visits to neighbourhood or local markets, where children could see, touch and smell fruit, vegetables, fish and meat, and talk to stallholders — many of whom were growers — led, over time, to some children wanting to taste foods they had previously rejected, especially vegetables and fish.

City Bound: Viewing the City with different eyes

Meike Foegen & Susanne Kaiser

Susanne Kaiser and Meike Foegen working for the bsj Marburg in Germany since 1996 and 2009. The bsj is a non-profit organization, that works with physical aspects and potentials of adolescent lifestyles. Susanne is working as a pedagogical director of an outdoor centre and Meike is working as a social pedagogue with schools.

Instead of an Introduction: City Bound. Experience-orientated activities in towns

City Bound is an adventure-based concept that uses urban areas. For many years it is used in vocational trainings to strengthen key-competences of trainees, such as the ability to get in contact with strangers, to solve problems or to act on one's own initiative. City Bound projects help participants to build and enforce these abilities while seeking for a job but also engage unemployed youngsters to manage their daily life. Urban areas have been widely neglected in educational theory and praxis and were mainly negatively associated with bad environment, solitude, violence, danger and so on. But since the 1960ies and especially since the 1980ies urban life has been discovered and used for social work: areal, social, political and infrastructural conditions are ever since used as learning arenas.

What is City Bound?

City Bound uses classical methods taken from adventure-based trainings and adds new methods adapted to the conditions of urban areas. Activities such as modified rallies, interviews with people of public interest or organising a public breakfast, highly provide participants with practical- and self-experiences, that influence positively their personal development. But in contrast to outdoor- and adventure-based methods, City Bound focuses on the individual. The size of the group is reduced step by step, so that individual challenge and responsibility rises. As in similar experience-based learning arenas, reflexion has a high value.

The idea of City Bound can be summarised in five fundamentals:

1. Activities require action and communication.
2. Activities shall inspire to change perspectives.
3. Activities shall challenge the participants.
4. Activities are chosen precisely according to developmental goals.
5. Activities and experiences must be reflected and transferred into daily- and working-life.

Chances in working with youngsters

Participants of City Bound projects at the bsj often only have a low level of formal education and stem from socially deprived families. They do not show willingness to get in touch with strangers, have only little or unrealistic plans for their future, have trouble with orientation and mobility in urban areas and show little self-esteem. Especially while crossing from school to working life, young people face these problems. City Bound gives these youngsters the chance to become active. They will learn to move confidently in their environment and develop strategies to handle

frustration and disappointment. Getting in touch with strangers and institutions that are relevant for their future working life will provide them with confidence and open opportunities. Working with young migrants, City Bound offers the chance to support their integration step by step, e.g. by getting familiar with their new environment and talking to new neighbours and citizens. These tasks challenge the participants and motivate them to use and improve their language skills.

Practical examples

Pupils, as described above, have inhibitions to get in contact with strangers, both on phone and face to face. Due to their social situation, they are convinced not to have any chance on the employment market. So, it is important to provide them with positive experiences that increase their self-esteem and make them belief in their own abilities. Therefore, City Bound creates ‘secure areas’, which youngsters can use to develop themselves and to reduce fear.

Challenging situations shall therefore be:

- **New:** E.g. to orientate in an unknown district.
- **Recognisable:** E.g. to work in a factory.
- **Rich in contrast:** E.g. a delinquent joins a police patrol.

And may look like these examples:

a) ***Photo session:*** Participants are asked to take a group-picture of 25 strangers including two nationalities, one child, two bags and at least one person older than 45 years. This task is done in a group, so that ‘weaker’ participants may learn from more confident group members or talk to strangers in small groups. In doing so, they make the positive experience to get support from others and strengthen their self-esteem.

b) ***Lost in the city:*** Participants are brought ‘blind’ to a place in the city and have to find the way to the town hall. This is performed in pairs. One participant has covered eyes and wears a T-shirt printed with “*Excuse me please, I need your help to find the way to the town hall*”. The other wears a T-shirt printed with “Please do not talk to me, I am only documenting”.

c) ***Searching for Mr. X:*** Promoting their sense of orientation, participants have to play the game *Scotland Yard*, but in real life. Equipped with a map, they must chase Mr. X (teacher, trainer) using public transports.

d) ***A flower changed in trade for supper:*** In small groups each participant gets a plastic flower. Without money they are asked to trade the flower for food. In the end all participants prepare a supper and exchange their experiences in the group.

e) ***Individual tasks:*** Each participant has to fulfil one activity alone, e.g. conducting an interview, singing on the market square, reading out loud in public etc.

Conclusion

City Bound offers opportunities for experience-based learning in the participant’s immediate living environment. In contrast to adventure-based methods, City Bound takes place “just around the

corner” and helps creating and enforcing soft- and hard-skills that young people need for daily and working-life. These activities are highly equivalent to social situations, which trainees have to face sooner or later. Positive experiences made in ‘secure settings will have a long-term effect and will help to master new challenges in real situations such as job interviews, vocation or in the workplace. Being active and successful in real situations provides the participants with confidence in themselves and in their abilities.

The city as a “special environment” for experiencing the world. The connection between the Pizzigoni Experimental Method and Outdoor Education.

Eugenio Fortunato

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This contribution aims to highlight the points of convergence between Outdoor Education (hereinafter referred to as OE), the city, understood as an ‘alternative’ learning space in which knowledge is embodied (Bortolotti, 2019), and the pedagogical and didactic principles disseminated in the experimental method proposed by Lombard teacher Giuseppina Pizzigoni (1870-1947). The Italian educationalist, who was the first to recognize the educational and didactic value of the city at the beginning of the 20th century, considered the urban space as a special environment (Pizzigoni, 1922; 1931; 1956) necessary to ensure students' direct contact with the world. On the one hand, drawing on this pedagogical culture and, consequently, delving into the educational past is effective in broadening the horizons of pedagogical reflection on OE. On the other hand, combining the Pizzigoni Method with OE invites us to consider the possibility of educating ‘with’ and ‘in’ the city because it is rich in educational subjects, as the Lombard teacher Giuseppina Pizzigoni reminds us.

Specifically, although theoretical, the proposed work aims to understand, improve, and develop further interpretative categories related to OE and the Pizzigoni Experimental Method, as well as to deduce new teaching strategies in teaching and learning processes that consider the city as an educational space (Amadini, 2020; Lombardi, 2020). The guidelines that orient the pedagogical discourse on OE in relation to the city can be traced back to the belief that place has a significant educational impact (Bortolotti, 2019) and to the happy intuition of teacher Giuseppina Pizzigoni: an example of innovative spirit in 20th-century Italian education who adopted and felt viscerally the importance of educational experimentation, placing the work of the teacher and the learner at the center (Pizzigoni, 1946). The Lombard teacher used urban space as a learning environment in which it is still possible to identify interdisciplinary teaching paths centered on students who learn through experience and exploration, transforming their skills and knowledge into competencies, or Learning Units (LU). For these reasons, delving into the educational past aims to demonstrate two main aspects: on the one hand, to provide an educational and teaching model that can enrich contemporary education by adapting it to the context in which teachers operate (Fortunato, 2024b); on the other hand, to validate the educational functions of the city and its teaching effectiveness thanks to the OE. Therefore, the educational use of the urban landscape refers to a mindset of didactic experimentation, legitimizing the city as a learning environment in pedagogical discourse.

Pizzigoni's methodological contamination manages to strengthen the existing synergy between OE and urban space: the latter investigated as an experiential learning environment also considered by the Lombard teacher as an educational environment for renewing the school, called, precisely, a ‘special environment’ (Pizzigoni, 1922; 1931; 1956). The city, therefore, makes it possible to apply the Pizzigoni method, helping to understand its developments and adaptability thanks to the educational passion and didactic creativity that should characterize the teaching activities of teachers within the current school system (Fortunato, 2024b). In this regard, it is important to note the belief that «OE cannot be limited to activities in the natural environment. This is the case with visits to museums and galleries, lectures by experts, and so on: if organized within properly structured educational programs, these events can undoubtedly fall under the umbrella of OE, even

if they take place indoors or in an urban setting, as they are still experiential and directly related to the ‘real world’» (Bortolotti, 2019, p. 76).

The clarification proposed by Alessandro Bortolotti invites us to go beyond, or rather, to overcome the definition that is frequently assigned to OE. Outdoor education also includes the city, since urban space is, to all intents and purposes, an educational environment and a cultural context in which countless opportunities for active and experiential teaching and learning intertwine and harmonize without any coercion (Bortolotti, 2019; 2024). Similarly, considering this “special environment” (Pizzigoni, 1922; 1931; 1956) in teaching and learning processes inevitably brings to mind the verbs ‘design’ and ‘innovate’, as demonstrated by the pedagogical thinking of Giuseppina Pizzigoni, who can be considered a true example of renewal in schools and disciplinary teaching.

Therefore, practicing OE in the city means considering the unique characteristics of a place (Waite, 2010) and understanding its educational value. «Places, if interpreted as opportunities for place-based learning, can in fact suggest stimulating teaching ideas in every discipline or, even better, in a cross-curricular and interdisciplinary way» (Bortolotti, 2019, p. 161). Furthermore, as an environment for pedagogical reflection, discovery, and engagement with history and artistic and architectural heritage for new generations, the city is a particularly effective educational space for transforming school subjects into keys to life (Pizzigoni, 1922; 1931; 1956). The above makes possible the desired connection between OE, the city, and the pedagogical principles outlined in the Experimental Method by teacher Giuseppina Pizzigoni, providing, moreover, a further opportunity to transform geography into knowledge that is acted upon and embodied in the student's experience. The synergy of intentions and aims that OE shares with the pedagogy proposed by the Lombard teacher is, in some ways, close to the vision of geography as a ‘pivotal discipline par excellence’ contemplated in the National Guidelines (MIUR, 2012) because it is capable of connecting with other knowledge necessary for students to read, know, and interpret the territory, and the historical, artistic, cultural, and religious heritage preserved in their local area.

The city, a “special environment” (Pizzigoni, 1929; 1931; 1956), becomes an “alternative” learning space because it is rich in educational subjects that stimulate problems and questions in students. In fact, in order to teach geography and make it ‘embodied’ in the lives of her pupils, teacher Pizzigoni organized lessons in the city, in the meadows, on the lakes or in the mountains, using trains or boats. It is only in this way that teaching becomes ‘objective’ (Pizzigoni, 1920), to use the words of the Italian educationalist, and therefore in line with the reality of the territory. The lesson is thus based on the object, i.e., facts and concrete things, on direct experience and observation. It is therefore universal and, therefore, valid for everyone. In some ways, it is agreed that practicing OE in the city can help teachers create new learning paths, but, at the same time, delving into the pedagogical principles outlined by teacher Giuseppina Pizzigoni in the early 20th century provides countless teaching ideas that can still be useful for contemporary education (Fortunato, 2022; 2024b). The Italian educationalist's warning is thought-provoking:

«I would add that not only must man know the things that surround him in order to find his way among them, but that he cannot claim to know things if he does not know their cause, their reason, their value. [...]. Let us leave the world of words and enter the world of facts. Facts teach; schoolchildren experiment and therefore learn [...]. From all that I have said, it is clear that we need to place school in its new environment, which is ultimately the world» (Pizzigoni, 1929, p. 11).

In other words, Pizzigoni's methodological contamination in outdoor activities is possible for a number of reasons. First and foremost, the Experimental Method starts from the surrounding environment, making school subjects more accessible than a book because OE involves direct experimentation. Furthermore, the city is an inclusive learning environment because it contains direct mediators that allow students to experience educational content in a concrete way through their five senses. It is always within the city that the Lombard teacher's invitation to leave the abstract and enter the world of facts (Pizzigoni, 1929) can materialize, ensuring the desired synergy between the OE, the Pizzigoni Experimental Method, and urban spaces, thereby stimulating teachers to engage in research-action-training (Asquini, 2018). The invitation of the Italian educationalist is, in fact, to seek in reality, and therefore also in the city, the concreteness of things through experience, thus referring the teacher back to the cultural principles underlying her pedagogical intuition and scientific method. For these reasons, Giuseppina Pizzigoni asserts:

«The new school, which must experimentally impart geographical notions and knowledge of social life, will consider its environment to be the workshops of the blacksmith, the tinker, the carpenter, the glazier, the brickmaker [...]; it will consider as its environment the meadows, the countryside surrounding the city, the train, the steamboat, and all those villages close enough to serve admirably as teaching aids for the teacher to give pupils an understanding of plains, mountains, valleys, streams, rivers, lakes, bridges, provinces, regions, and the varied life that exists there» (Pizzigoni, 1956).

The synergy between OE, urban space (scattered with cultural heritage sites and a new educational context used as an experiential learning environment) and the Pizzigoni Experimental Method (which encourages people to move away from the abstract and focus on experience) can ensure the activation of cross-curricular and interdisciplinary educational and teaching programs through the involvement of experts/organizations/associations in the area. Therefore, combining OE with the Pizzigoni Method is functional because it enhances the outdoor environment and cultural heritage present in the local context: imposing statues, historic and religious buildings, fountains, votive chapels, special places such as monumental cemeteries and other architectural masterpieces. These are scattered throughout cities and are often overlooked or forgotten. However, it is thanks to this desired synergy between OE and the Pizzigoni Experimental Method that it becomes possible to ensure the rediscovery and cultural revaluation of these places, as well as cultural awareness on the part of the younger generations, which can be transformed into genuine care.

In summary, practicing OE in urban spaces becomes a real challenge for schools today and in the future for a number of reasons, which are listed below: first of all, to reevaluate, rediscover, and reconnect students to the cultural roots and identity of the area where the school is located. Linking OE to the Pizzigoni Experimental Method allows students to assimilate educational content and skills from the urban landscape according to their own learning style, thus ensuring active, experiential, inclusive, and personalized teaching. Similarly, using the city as a learning environment means exploring different aspects of history, art, science, and more through exploration and direct sensory experience, also involving experts in various fields. Finally, reference to OE in urban contexts can help students make cultural connections, i.e., learn and interact in new environments beyond spatial boundaries, geographical distances, and time, using monuments, archaeological sites, shops, squares, alleys, porticoes, historic buildings and castles, craft shops, monumental cemeteries, churches, avenues, and natural beauty.

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Ocean Literacy: new horizons for outdoor educational planning

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In recent decades, pedagogical epistemology has increasingly shifted towards a deep reflection on the relationship between human beings and the environment, contributing to the development of a field of study known as green pedagogy (Malavasi, 2008). This approach, which draws one of its main references from Outdoor Education (Gair N.P., 1997), has led to the symbolic identification of “green” as the color of a new educational vision that emphasizes direct contact with nature, sensory experience, and learning situated within natural environments. However, this chromatic association risks oversimplifying the complexity of the outdoor educational landscape, overshadowing the richness of other spaces, colors, and environments that can offer meaningful learning opportunities. According to this outdoor education is not confined to the bucolic settings of forests or meadows, but extends to urban, peri-urban, lake, and coastal contexts.

A truly comprehensive pedagogical reflection should therefore seek to rediscover and enhance the diversity of outdoor educational environments, recognizing that learning outside the classroom can take on multiple forms, all potentially capable of generating meaningful processes of growth and development. It is therefore necessary to move beyond the symbolic monochrome of green and embrace a more nuanced and articulated vision of the relationship between education and the environment—one in which every space, whether natural or built, can become a place of connection, discovery, care, and ecological awareness.

The quality of educational experiences, understood as the transformative value of personal lived experience within meaningful contexts (Dewey, 1938), has long represented a privileged field of investigation in interdisciplinary research. In particular, outdoor education has gradually established itself as a domain of reflection and experimentation, placing at its core the interaction between the individual and the natural environment. However, while in the past the emphasis was predominantly placed on “green” spaces—terrestrial and walkable environments such as woods, meadows, and forests—today, the challenge for pedagogical research is to broaden its perspective towards other ecosystems, exploring environments that are often overlooked yet rich in educational potential.

In this regard, the “blue” of the sea emerges as a new epistemological horizon: a fluid, transnational space not fully subject to state jurisdictions, which challenges traditional educational practices and opens up new perspectives for situated learning. The sea, understood not only as a physical place but also as a symbolic and cultural space, is attracting increasing attention from numerous fields of study, notably the marine social sciences, which are dedicated to understanding the complex interactions between humans, coastal communities, and oceanic environments.

This opening to the “blue” does not merely represent a geographic extension of educational spaces but invites a radical rethinking of the ways outdoor education is designed, recognizing the formative value of experiences occurring in aquatic, riverine, lacustrine, and marine contexts. These environments have the potential to stimulate new forms of relationship, ecological awareness, and global citizenship.

In this context of the progressive expansion of pedagogy towards non-conventional educational environments, it becomes increasingly imperative for the educational sciences to take an active role in defining and structuring curricula that integrate the principles and key concepts of Ocean Literacy (Schoedinger et al., 2005; NOAA, 2021). This paradigm, initially developed within

scientific and naturalistic fields, is based on seven essential principles that outline a systemic understanding of the ocean and its role in the life of the planet and humanity. However, it is necessary to engage this theoretical framework in dialogue with pedagogical theories so that its educational relevance can emerge on a scientifically grounded basis. Indeed, it is only through a systematic dialogue with educational theory that Ocean Literacy can be recognized not merely as a tool for scientific dissemination, but as a genuine theoretical and formative framework capable of guiding meaningful, inclusive, and transformative teaching practices. This dialogue allows us to highlight the educational scope of this approach, which fosters in learners not only environmental knowledge but also critical skills, a sense of ecological responsibility, global belonging, and the capacity to act ethically towards marine ecosystems.

Integrating Ocean Literacy into school curricula and training programs means promoting an education oriented in direction of sustainability, capable of connecting scientific knowledge, lived experience, and democratic values. This is an urgent and cross-cutting pedagogical challenge that calls for new alliances among educators, researchers, marine scientists, and local communities, with the aim of building an informed, participatory, and territorially rooted culture of the sea.

Since its initial formulation in the early 2000s, the Ocean Literacy paradigm was developed in response to a specific epistemological need: scientists, oceanographers, and educators expressed deep concern over the near-total absence of dedicated ocean-related content in American school curricula. In this context, the primary goal was to clearly and systematically define what should be taught in schools regarding ocean topics, moving beyond the mere sporadic inclusion of isolated information within educational programs.

It soon became clear that merely linking some ocean-related content to existing educational standards was not sufficient. Rather, it was necessary to identify a coherent set of knowledge, skills, and core concepts to be woven into the broader fabric of disciplinary learning. Furthermore, establishing precise criteria and indicators to assess students' understanding and competence became essential, thereby defining what an informed and competent individual in oceanography should know and be able to do by the end of their educational journey.

This approach has enabled the development of a rigorous and scientifically grounded educational model, capable of promoting not only specific knowledge about the marine ecosystem but also a sense of responsibility and awareness towards ocean conservation—essential elements for educating conscious citizens in an era marked by global environmental challenges.

This paradigm, naturally and profoundly aligned with Kolb's (1984) experiential learning model, encourages directing outdoor education on the road to the marine environment—a context that all human beings, directly or indirectly, experience and inhabit. Ocean Literacy, in fact, goes beyond transmitting theoretical knowledge by promoting active and immersive learning, where direct experience, critical reflection, and practical application combine to foster an authentic and lasting understanding of the sea and its dynamics.

This experiential approach breaks down the barriers of traditional teaching by offering students the opportunity to engage directly with the marine world through hands-on activities—such as coastal exploration, navigation, and observation of aquatic ecosystems—that stimulate curiosity, discovery, and a sense of responsibility. In this way, outdoor education becomes a dynamic and transformative process, where the marine environment acts as a true “learning laboratory,” capable of connecting scientific knowledge, sensory experience, and ethical awareness.

The research project *Sea Education: Blue Practices – Towards an Educational Planning at Sea* was initiated with the aim of promoting, starting from Sicily—an island territory entirely embraced by

the sea—and subsequently expanding to the broader national context, research and training pathways focused on enhancing the marine environment as an educational space. In an era when outdoor pedagogy is expanding to new territorial and symbolic dimensions, the sea emerges as a still underexplored educational space, despite its ecological, cultural, and identity centrality in the Mediterranean basin.

Starting from a systematic mapping of existing marine education experiences in Sicily, the project aims to survey and analyze educational practices conducted in marine or near-shore environments, with the goal of identifying models, methodologies, and pedagogical approaches focused on the protection, understanding, and enhancement of marine heritage. These practices represent a valuable yet fragmented educational resource that needs to be reorganized into a systemic and integrated vision, enabling a more coherent and structured continuation within fully developed curricula.

The research aims to promote a new educational paradigm centered on the marine environment, through the achievement of the following specific objectives:

Qualitative census of existing marine educational experiences: systematically identifying, documenting, and analyzing current marine education initiatives active in the Sicilian territory, with particular attention to the entire archipelago and coastal areas. The aim is to highlight significant and potentially replicable practices by identifying diverse but convergent approaches, methodologies, and educational objectives centered on valuing the sea as a formative context.

Development of a plan for dialogue and collaborative design: to initiate a participatory process of dialogue and co-design with local authorities, educational institutions, associations, and learning communities, with the aim of outlining coordinated educational strategies based on territorial rootedness, sustainability, and inter-institutional cooperation.

Development of a regional marine education network: to promote the establishment of a stable and structured network of stakeholders and initiatives operating in the field of marine education, supported by the definition of Guidelines and Operational Protocols. These tools aim to facilitate the dissemination of Ocean Literacy principles and the specialized training of educators, teachers, and practitioners, contributing to the consolidation of a pedagogical culture of the sea within the Sicilian and Mediterranean context.

Through this process, the project aims to consciously inhabit the sea as an educational space, recognizing it as a “peculiar place” that surrounds every individual—none excluded—and which, in both its materiality and symbolism, lends itself to being experienced, explored, and understood through engagement, relationships, and interaction with nature and others. The sea thus becomes not only an object but a subject of education—a generative space for learning, ecological citizenship, and planetary belonging.

Within the ongoing research and training project, the following tentative results are expected:

- an increasing focus on the theme;
- an interconnection between the proliferation of educational service near to the sea and the pedagogic-didactic benefits demonstrated by educational experiences near to the sea;
- a motivation of local institutions to create paths of this type;
- an increase in families' requests for services of this nature;
- the creation of a dense relational network between the experiences and the Local Authorities.

The nature-culture binomial (Tomarchio, La Rosa, D'Aprile, 2018), long underlying outdoor education practices, strongly emphasizes the idea that every educational space inherently carries an

essential territorial connotation. The environment is not merely a backdrop for the educational experience but a co-constitutive actor in the learning process itself, capable of influencing the content, methods, and objectives of education. From this perspective, the landscape—whether natural, cultural, or symbolic—becomes a meaningful place rather than a mere container.

Within this interpretative framework, the sea emerges as an educational space still largely underestimated, despite its geographical, historical, and economic centrality in the Mediterranean context, and particularly in Sicily. The sea, often relegated to the role of a subject of study within scientific and naturalistic disciplines, can and must be recognized as a fully-fledged educational space: a generative environment where the rights and duties of a conscious and responsible citizenship (Squarcina & Pecorelli, 2017) can be concretely and contextually enacted, based on respect for the environment, the interconnectedness between human communities and marine resources, and the urgency of sustainability. This represents a first step to establish a pedagogy of the sea as a stable component of outdoor education in Italy. An education capable of recognizing the didactic, ecological, and symbolic value of the sea, and integrating it into a broader, polychromatic, and transdisciplinary pedagogical vision, where blue stands alongside green, expanding the horizons of learning and reconnecting educational practices with the concrete life of local territories.

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A Trek to Rome: Exploring Wellbeing and Place-Responsive Community Connections amongst Long-Distance Solo Walkers on the via Francigena.

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Introduction

The via Francigena (known as ‘the way of the Franks’) is an historic 1,180-mile pilgrimage from Canterbury, England to Rome. The route is quieter than the Camino de Santiago and does not have the same level of camaraderie. Surprisingly, there had been little previous research on solo walkers on via Francigena and their connection to wellbeing, culture and community. Therefore, this study explored solo walkers’ reasons for embarking on such a journey and was inspired by my own passion for long-distance walking, by having undertaken a section of via Francigena, and by my academic interest in the field of pilgrimage tourism. These enabled me to deal with my own inner critic whilst on a journey where I shared similar experiences to the participants as we journeyed from one village to the next on the via Francigena.

The research explored the experiences of ten solo walkers and identified four reasons for embarking on a solo walk that related to significant places and wellbeing. The study revealed that, for solo walkers, the journey was more important than the destination. Although the walkers had sought solitude and the sense of being alone on the walk, the social interaction of meeting other pilgrims along the way was also an integral part of the appeal of the via Francigena, and they felt that the community and culture provided a sense of belonging and social connectedness which contributed to their wellbeing.

The Research

The research was based on the methods for interpretive phenomenological analysis (IPA) and used qualitative interviewing around four open ended questions. Participants were recruited through an advert for solo walkers on a discussion forum for walkers on the via Francigena. Participation in the study was voluntary, and informed consent was obtained before the interviews took place. Walkers meeting the criteria for inclusion were interviewed on WhatsApp. The interviews were recorded and thematically analysed. The sample size was determined by data saturation which occurred after ten interviews. The sample should be seen as a convenience sample and is not representative of solo walkers on the via Francigena as there was no extant evidence of the numbers or characteristics of solo walkers on this pilgrimage.

The Solo Walkers

Ten solo walkers aged from 21 to 75 years old took part in the study. They included (8:2 women/men), and of 10 nationalities. They were all solo walkers who had completed all or part of the via Francigena. This ranged from 200km to 1,662km. Most (n=8) had previously walked the Camino de Santiago, and many (n=9) were regular long-distance walkers.

The Findings of the Study

Thematic analysis of the interviews identified four reasons for embarking on a solo walk that

related to significant places and wellbeing. These are presented below in frequency order and with supporting evidence.

Theme 1 – Seeking Connection to others

Sub-themes: Culture, Community, Spiritual

All of the pilgrims in the study set off alone from their familiar communities. All of them described their initial motivation as an attempt to distance themselves from that community, but then to re-group with others, embrace the pilgrimage community, and find solidarity whilst being with others. This expectation of being part of a community was seen to result from sharing common ground, enjoying simple relationships and seeing value in others. Malis, Masilka & Janeckova (2023, p.581) point out that social equality plays a strong role in the pilgrimage. They note that as soon as you see someone with a backpack, you automatically feel friendship, no matter where they come from. This is reflected in the expectations of the pilgrims. As one stated,

I knew Francigena was a long walk, but it looked interesting, I wanted to be part of the Camino family, I want to find more time for others and listen to their stories.

Thus, wishing to be a part of a new community was an important motivation for the pilgrims in my study. However, seeking connection to a new community had different meaning for the people that had a faith and those that did not.

I was exploring faith, I am Catholic, not practising, but exploring the church, I visited was a religious experience, I was looking for answers, the silence, the feelings.

Despite this difference, the pilgrims all described a sense of community during the walk, and all of them found some form of spiritual connection. Indeed, all encountered some form of spiritual transcendence, but each had a unique narrative and ascribed it unique meaning. This reflects work by Jenkins (2023, pp.2-3) who notes that long-distance trekkers on hiking trails often speak about their journeys as ‘spiritual’, describing connections with nature, or deep relationships with a community of walkers as transcendent. This was certainly evident within the interviews where pilgrims talk about walking through a sacred landscape, where they speak about their walks as spiritual journeys, and where their different narratives describe their connections with nature and community.

Theme 2 – Seeking Connection to Oneself

Sub-themes: Embodiment in Movement, Finding Oneself, Seeking Physical Benefits.

Within all of the interviews there was evidence that a search for a connection to oneself was a major reason for embarking on a solo walk on the via Francesca. They reasoned that the bodily act of walking and movement through a landscape would encourage them to appreciate themselves, their bodies and their unique capabilities.

I had a rough moment in life and needed to get in touch with oneself

Thus, solo walking would allow them to release their emotions and stored bodily tensions leading to improved emotional wellbeing and a greater heightening of their senses. This, in turn, would lead to inner balance and greater freedom. Pereira & Silva (2018, p.101) suggest that travelling alone

enables one to get out of their comfort zone and search for something more meaningful than leisure and relaxation.

Indeed, looking back on their walks, all ten pilgrims mentioned becoming more attuned and developing an improved awareness of their bodies. What emerged from the data was that they felt that they acquired confidence in their physical abilities, gained a deeper connection through awareness and sensory perception, and that the bodily act of walking allowed them space to express themselves thus enabling healing for their bodies, minds, and spirits. Mau et al (2021) claims when walking more than 30km, physical movement can be psychologically helpful as it provides new experiences with body and self and the liminal phase becomes a space for transformation leading to enhanced wellbeing. As Wilson & Harris (2006) puts it, travel provides an important arena in which individuals can explore and reflect, and that travel can trigger new perspectives, or a renewed appreciation of life.

Theme 3 - Seeking Solitude.

Subthemes: Alone, Simplicity, Silence, Reflection

The pilgrims researched in this study chose via Francigena because of its remote, rural location without excess tourism and were all solo walkers. Characteristically, their reasoning was that spending time alone would provide space for reflection, an opportunity to prioritise their own needs and an escape the constraints in life.

Having completed their walks they found that sense of solitude and the act of walking alone had helped to clear their heads. In part, this arose from prolonged engagement with the landscape and the culture. As one stated,

I am a small person in a large place, there is a real tangible purpose in the landscape, it is very grounding.

However, it also arose from discovering their authentic self by immersing themselves in deep reflection, going into depths about their own problems and asking themselves important questions.

I spent 2 months walking alone, 800km. Walking helped (me) process the grief, I wanted to look after my health and be mindful of what was going on, walking allowed me to have emotions and zone out.

Wilson & Harris (2006) points out that travelling alone is about getting to know yourself, finding out your strengths and weaknesses, overcoming your fears and getting out of your comfort zone, and that this often results in increased confidence and self-growth.

Theme 4 – Seeking Adventure

Sub-themes: Mindset, New Experience, Challenge

The interviews identified that eight pilgrims (8/10) were motivated to embark on this solo walk by seeking a new adventure. When these eight were asked why an adventure was important, they provided four key reasons. All eight sought a sense of satisfaction in completing the walk and a sense of the adventure as being prepared to venture into the unknown. However, four seemed

motivated by testing their ability and skills whilst the other four seemed motivated by expectations of the accomplishment and enjoyment. However, for most the idea of facing and overcoming a challenge on one's own was a significant draw.

I love hiking, I do big adventure trips with companies, but Francigena, this challenge I had to do for myself.

Interestingly, the word 'challenge' occurred repeatedly in the interviews when discussing the experience of the walk. In some cases, pilgrims described struggling with physical ailments and demonstrated their determination by overcoming these challenges. Thus, for the pilgrims, the sense of challenge was not only walking the pilgrimage but in understanding their own mental strength. Indeed, several pilgrims made explicit connection between completing the pilgrimage and their ability to manage their personal circumstances through retaining a positive mindset. This aligns with Steinhardt & Dolbier (2008), who state that resilience can be developed through controlled exposure to a situation.

Conclusion

The research discovered how the solo walkers sought out a place to walk in a remote, rural, mountainous location and although they were seeking solitude, they were also seeking connection with others. For the participants, the pilgrimage offered space to discover their authentic self, to get in tune, find a rhythm and reconnect in mind, body and spirit, whilst connecting with the culture and community of the pilgrimage. Van Laer et al (2019, p.5) states that it is the specific sensory and symbolic elements of these sacred sites, combined with like-minded others which creates an environment that heals emotional pain. In addition, Marsh (2007, pp.292-293) found that the spiritual aspect of adventure enhanced a sense of connection, mental and physical aspects resulting in better wellbeing. This study also showed that the connection to sacred sites and culture is sought out as a means of emotional recovery and improved wellbeing, as it is seen as a place where people can confront their discomfort leading to increased confidence, resilience and self-growth. Although there were challenges, this didn't stop them venturing out and embracing a new culture. As Devereux & Carnegie, (2006, p.51) claims new communities are formed both with other pilgrims and those who live on route to offer support and hospitality. This study also reveals how the participants engaged with others in the Francigena community, sharing experiences along the journey. The ten pilgrims embarked on solo walks of self-discovery, they found solace, healing, and restoration and through support of the community, which played a vital role in their well-being.

Implications from the Study

A particularly rewarding aspect of the conference was the strong interest expressed by female attendees interested in physical activity and wellbeing, many of whom shared a deep connection with the themes of empowerment through walking. Conversations emerged around the embodied experience of long-distance walking and how it fosters a heightened awareness of self, space, and resilience and how reflection on walking can serve as a form of problem-solving and self-discovery. As Gray (2018, p.7) puts it outdoor women have persistence, passion and determination. Thus, walking is not just a physical act but offers a unique way to confront personal challenges and step beyond one's comfort zone. Solo walking by women is a powerful metaphor for mindset, transformation and for reclaiming space in the outdoors. This resonates strongly with the idea of pilgrimage as both an inward and outward journey, particularly for women seeking autonomy,

clarity, and renewed strength through movement. In addition, there was considerable enthusiasm for the idea of walking as both a physical and psychological process of problem solving, using the landscape and walking for therapeutic benefits and self-discovery. Again, walking the via Francigena seen as a powerful metaphor for navigating life's uncertainties.

I am grateful for this support, and it has led to me organizing one-day wellbeing women's walking groups which connect with landscape, culture, and community. Bass & Loeffler (2023) state that embodiment and walking in nature can be experienced both in mind and body which help women foster a healthy body image as well as being a helpful coping mechanism which allows time for them to reset and step away from personal circumstances.

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Cultivating Communal Hope Through an Intersectional Lens: A gathering to share human stories in the more-than-human world.

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A process of coming together, writing and re-writing experiences

The “Cultivating Communal Hope Through an Intersectional Lens” workshop constituted the first initiative realized by the Intersectionality in the Outdoors Network (ION). ION was created during and after the 2023 European Outdoor Education (EOE) conference in Finland. It is the result of a productive exchange among scholars and practitioners from different countries, who shared a common interest in integrating intersectionality as a critical analytical lens within outdoor studies and practices. Through our online meetings, network members expressed both a shared sense of fatigue and an urgent need to disrupt recurring cycles of discourse that often functions in an echo chamber of ‘rinse and repeat’. Collectively we noticed that, despite decades of scholarship (e.g. Gray, 2016; Gray & Mitten, 2018; Loeffler, 1997; Mitten, 1985; Warren, 1996) outdoor spaces continue to reflect predominantly Western, male-dominated cultural frameworks, with restricted access for women, racialized communities, gender-diverse individuals, and other marginalized groups (Gray & Mitten, 2018; Lundin & Bombaci, 2023; Maina-Okori et al., 2017). In response, we designed a workshop as a *brave space* for critical engagement with themes such as masculinity, gender asymmetry, cultural narratives of gender, and the enduring resilience of Indigenous women as knowledge keepers, leaders, educators, and protectors of the land. The workshop sought to bring together participants across diverse intersections of privilege and marginalization, fostering dialogue around emerging questions, lived experiences, and personal narratives. Our aim was to advance these conversations in ways that challenge the status quo and reimagine an inclusive legacy for all genders and intersections in outdoor contexts, for present and future generations. As predominately white females within the ION network, we recognised the importance of acknowledging privilege as a prerequisite to dismantling the oppressive structures embedded in the field. We also believe micro-actions - such as cultivating personal awareness of bias - are essential to transforming entrenched power dynamics. Consequently, the workshop was structured to promote self-reflection and exchange of experiences of oppression and privilege.

Importance of intersectionality: Respecting the roots

Intersectionality is not a new concept in Outdoor and Environmental Education (OEE) (Maina-Okori et al., 2017) nor in the wider world. In OEE worldwide, progress for gender equity continues to move at a glacial pace, hindered by implicit biases, entrenched colonial norms, and dominant, often unexamined, gender roles. This workshop invited people of all genders, backgrounds, and lived experiences to a space where we could listen, speak, and challenge axes of oppression together within an OEE context. The session aimed to explore masculinity, gender asymmetry, and cultural narratives that shape access to outdoor spaces, but acknowledge that these are not the only areas of intersectionality. It is fundamental to recognise intersectionality is a concept that originated in Black feminism (Mirza & Nyhagen, 2025) and from the labour, be that emotionally, physically, materially, financially, socially, or by any other means, of Black women. While Crenshaw (1989) has been credited for bringing intersectionality into recognition in academia, it is thought that ‘intersectionality’ has existed as a practice and form of activism since the 17th century when in 1851, Sojourner Truth drew on her experiences as a Black woman, activist, and former slave and asked a conference of men and white women “Ain’t I a Woman?”. Additionally, The Combahee River Collective, a Black feminist lesbian socialist activist group, who formed in response to the marginalisation they faced in mainstream white feminist and civil rights movements have evolved intersectionality into what it is today, recognising Black women as inherently valuable (Eisenstein, 1978). Therefore, intersectionality, as a practice or theoretical position, cannot exist as such without race forming a pivotal part of the conversation. Intersectionality problematises the single axis framework dominant in feminist and antiracist theory that categorises marginalisation as a singularity and acknowledges the unique experiences of oppression and privilege that individuals possess (Crenshaw, 1989). In practice Matsuda (1991) evokes the process of asking the other question “When I see something that looks racist, I ask, ‘Where is the patriarchy in this?’ When I see something that looks racist, I ask, ‘Where is the heterosexism in this?’ When I see something that looks homophobic, I ask, ‘Where are the class interests in this?’” (p. 1189). In OEE, this practice of intersectionality demands of us to look beyond *the* barrier that someone may be facing to access or within OEE to consider the multiple identities that individuals hold and how different contexts may transfer oppression and privilege. Against the backdrop of a field shaped by colonial norms and dominant gender roles, the workshop sought to move beyond repetitive discourse and into a *brave space* for critical listening, storytelling, and action. The workshop began with conversations about listening, learning, and understanding to really *hear* the needs of others to take another step towards equity in OEE. In the words of Audre Lorde (1977/2007), “the fact that we are here and that I speak these words is an attempt to break that silence and bridge some of those differences, for it is not difference which immobilizes us, but silence. And there are so many silences to be broken” (p. 33). Participants of the workshop were encouraged to reflect on their own privileges and positionalities using the Academic Wheel of Privilege (Fig. 1), while contributing to a collective vision of disrupting the status quo and building a more equitable and inclusive future for OEE.

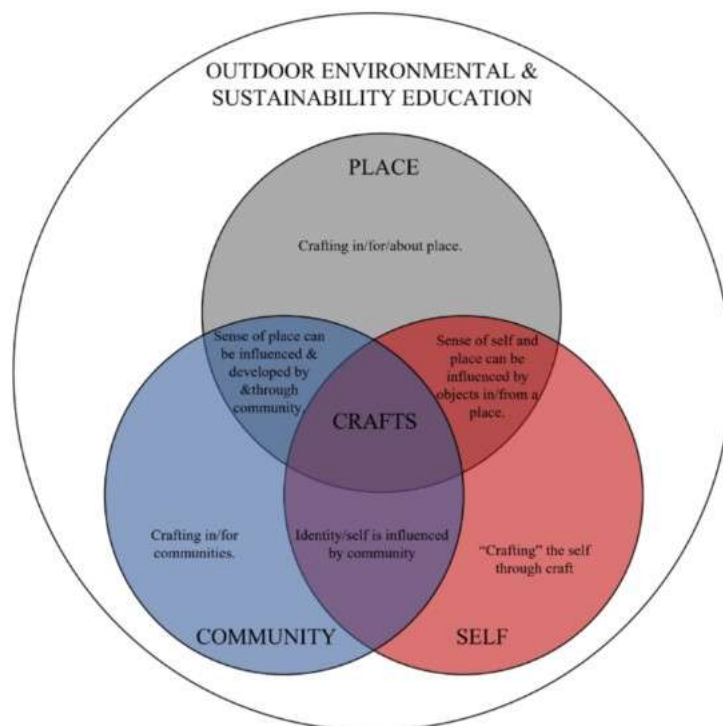
Figure 1 - Academic Wheel of Privilege



Note: This image depicts two crocheted flowers, one green and one pink, that were given to the participants of the ION workshop at the EOE conference 2025.

The wool to crochet these flowers was purchased from a local yarn shop in Rimini, grounding us into the locality and representing the support we bring to conference sites. The flowers were crafted by two members of ION during meals and casual gatherings at the conference, the importance of connection and conversation are in every stitch. These also symbolise the crosshairs of intersectionality that each individual represents. This crafting practice fits the framework developed by Chamberlin (2023) shown in Figure 2.

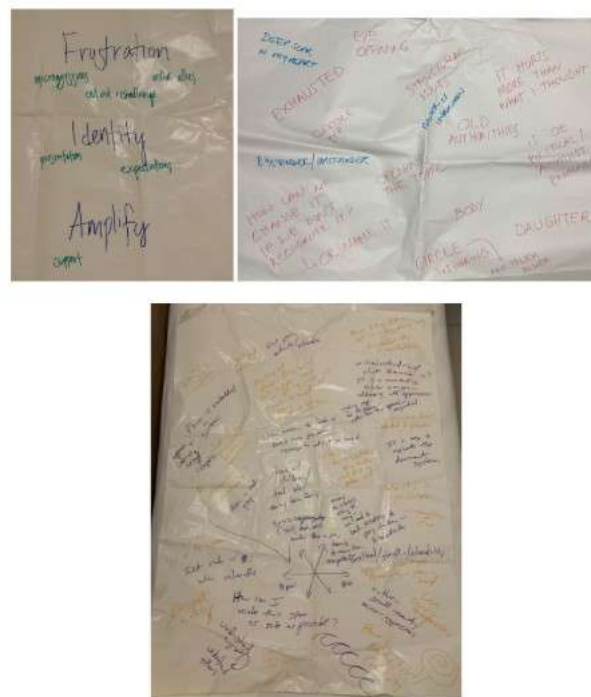
Figure 2 - *Connections of place, community, and self to craft in outdoor environmental and sustainability education (Chamberlin, 2023)*



Note: This figure depicts the interconnections between place, community, and self with crafts being a central point all within outdoor environmental and sustainability education developed by Chamberlin (2023).

Participants were invited to hang their flowers on their bags or coats, keeping their intention in mind as they did so. Each small flower represents the connection to place, community, and intention to take action. The purpose of the flowers was well-received, with participants sharing their gratitude and desire for the conversation regarding intersectionality to continue. One facilitator shared: “I want to acknowledge and thank the person who thought about the anchor of a flower, and I feel it’s really important at the end of the day, and our little diagram - something important to refer to. So, those prompts need to be front and centre as we keep going”. These mementos served as reminders and conversation starters, to share intentions and conversations on intersectionality with others in the future. At the end of the small group discussion time, we rejoined as a whole group to share key take-aways. Most of the groups shared posters with keywords and concepts that came up during the conversations, as seen in Image 2. One group did not utilise this method of expression, noting that language and writing are privileged skills, which reflected their conversation around intersectionality, power, and privilege.

Image 2 - Word Posters



Note: Word posters created by the workshop groups based on their conversations.

Upon the closure of the workshop, we reflected on the importance of thanking newcomers to this conversation as well as those who continue to show up time and time again. We want to create a space to encourage more diversity and intersectionality in OEE. This workshop demonstrated the power of sharing personal narratives to explore intersectionality and inviting individuals to continue

reflecting and taking action. The flowers extend the intentionality as they hang from bags and when asked about how they come to have a flower hanging there, this invites a conversation about what happened in the workshop, and since.

Reflections we are left with

Looking back at our reflections on the workshop, we see an afternoon spent in storytelling and vibrant dialogue that became more possible in OEE when workshop organisers created an intentional, inclusive, and reflective space. Built on and with practices rooted in intersectionality, our workshop invited participants into a facilitated, yet co-created, gathering to explore the impacts of identity, power, and responsibility in OEE. Staying present during the challenging and complex work of intersectional dialogue required us to both listen and speak deeply so that truths and narratives could be told and held by the collective. We know that changes begin when voices, previously silenced, are heard. Immediately following the workshop, participants expressed their enthusiasm to continue the discourse around intersectionality, sharing their own experiences and strengthening connections with others through conversation. Creating a space for so many voices to be heard was absolutely a success. However, we, the ION, are left with significant questions regarding the future of the network, and of intersectionality and inclusivity at OEE conferences, such as:

- How does using the group name, ION, instead of our individual names impact who chose to attend?
- Why did no one from the EOE conference board attend?
- How do we get these conversations going beyond the workshop?

These questions invite scope for further discussion and, in the interest of raising awareness and action, further work and publication. As members of ION, we commit to ensuring these conversations continue in future conferences by advocating for greater representation on conference planning committees, co-creating a welcoming information package for newcomers to ION, pitching a collective keynote for future gatherings, and continuing to share insights gained from our workshop in presentations and papers. Like each crocheted flower given during our workshop, these steps signify our intention to continue the ongoing work of transforming the field of OEE into a more inclusive, just, and welcoming space.

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The trouble will find You! -Tools and approaches for predicting failure conditions in Adventure Education

Jari Kujala

Me: Do you know what flow is? I mean, a situation where everything goes smoothly?

Boy: I've never had anything go smoothly

There is something special about learning from failures. Failure is likely to cause fear, anger and melancholy in one's minds. Can we learn anything from these experiences? What is this wasted time where every adventurer is unhappy in their own unique way? What is this maximum that the damage done is greater than its threats caused by the original cause.

Adventure education, when integrated with social and youth work, offers a proactive framework for engaging young people facing complex, interwoven risks. This paper presents a practice model developed through decades of direct work with at-risk youth, combining cognitive methods from social work with affective and elemental approaches from adventure education. The approach reframes "the trouble" not as a problem to be eliminated but as a catalyst for growth, belonging, and transformation. Implications for professional practice, project design, and cross-disciplinary application are discussed.

Background and the context

In 1997, I was invited to join the Malmi Group Project in the special social work unit for at-risk youth at the City of Helsinki Social Services Office. The work was unconventional, rooted in experiential challenges and outdoor activities. The report *From Firefighters to Coaches* (Heikkinen & Kujala 1998; Järventie 1999) noted this paradigm shift, in which adventure education transformed reactive crisis management from marginalization to proactive prevention. We were no longer merely extinguishing the fires of acute behaviour problems but equipping young people with the tools, relationships, and sense of belonging. We integrated the cognitive methods of social work and the affective methods of adventure education to serve the psychosocial growth of child welfare clients, which included a client plan (§30), an interim evaluation (§31), and an outcome (§27a) based on the contemporary Child Protection Act. When the work is consistent, its resource management can be implemented using simple parameters. As the work becomes more difficult, the content of the work becomes more time-related and the topological treatment of the problem. When the social office considers the complexity of the challenges of young people, the materialistic aspects such as basic needs and spiritual factors like moral growth of work inevitably emerge.

Methodologies

Topologies:

Proactive working requires identifying systems of change, where learning is shaped by natural motivation, the formation of new perspectives, and social participation. In accordance with Lewin's (1935) principles of topological psychology, in my work with youth at risk, failures are viewed as social constructions where:

- Motivations are based on the meanings of socio-spatial context of relationship and topology.
- Expectations are about subjectivity and recognition of needs
- The use of elemental nature, where the environment itself mediates the relationship through shared sensory and emotional immersion.

To create a space for motivation to emerge, there is a need to open new perspectives and facilitate participation. When this becomes common practice, we can build resilient capital.

Learning Loops:

Argyris and Schön's (1974) research into organisational learning reveals that many systems focus narrowly on external problem-solving—correcting errors without addressing the behaviours, assumptions, and governing values that create recurring issues. Therefore, models such as the following have been developed:

- Quick Fix (First Loop): Immediate response based on existing routines or habits.
- Change of Context (Second Loop): Altering the underlying structures or environments that shape behaviour.
- Reformulation (Third Loop): Transforming the fundamental model of intervention itself.

For example, a first-loop fix might be removing a young person from a harmful peer group. A second-loop change would involve restructuring their daily environments to remove enabling conditions for harm. A third-loop reformulation would reimagine the very principles of engagement—perhaps shifting from deficit-based supervision to co-created community projects.

Adventure Alternative:

Colin Mortlock's (1984) adventure paradigm proposes a radical alternative to normality. His philosophy outlines four stages of risk, progressing in intensity from play to misadventure. The third stage—frontier adventure—offers the greatest potential to fail or succeed. This approach works particularly well with at-risk youth who have been in the wrong place at the wrong time their entire lives. Frontier adventure breaks through this introverted structure and opens the door to the outside world.

Adventurous Social work

These six core methods used by “Malmi group” have evolved since 1998 to meet the needs of the format of the adventure trips to take.

1. Boundary objects serve as tool for the group to interpret and engage with the experience. They provide a shared structure through peer and can examine complex social issues without reducing the person to an object.

Case 1.: A youth involved in knife-point robberies was re-engaged through his love of football, integrating him to Finland's Top Football team. The co-created context shifted his identity from “gang member” to “team player.”

2. Simulations allow young people to actively engage in experiences rather than merely reflect on them. By experiencing tasks collaboratively, youth at risk develop new perspectives on social interactions.

Case2: Deeply emotional horse riding created low-risk, high-engagement scenarios where young people practised trust, expressed preferences, and developed empathy.

3. Safety Planning: Before each expedition, a safety plan is designed to address objective risks while recognising the unpredictable nature of human behaviour. Adventure settings often provide the necessary excitement and engagement for young people struggling with personal challenges, making risk-taking a controlled yet transformative element of social work.

Case 3.: A storm-day hike with a resistant, drug-dependent teenager mirrored his internal chaos, creating a context where he could finally name his substance abuse problem.

4. Embodiment: In the embodiment the movement is more dynamic compared “to another and from another to me” mode. Here the recognition works in both directions and is influenced by the context that is of elemental nature. Mind and body form “an expressive whole” where the bodies are psycho-physical receivers of the world.

Case 4.: We climb the rock with young people in a chain formation using traditional belaying techniques, without harnesses or carabiners. In stages created along the route, young people belay each other by communicating physically and verbally. The method has proven to increase group cohesion and subjective safety.

5. Storytelling

The perspective in story telling is taken by stepping backwards and by making distance for another person. This is the creation of narratives by the campfire that is of intersubjectively shared experiences of affective state. It helps to make the distinction between the experienced and felt.

Case 5.: At a riverside cabin after white-water rafting, campfire stories fostered mutual recognition. As one youth put it: “That guy came to talk to me just like he knew me... amazing.

6. Reflected Meta-Learning

The reflection is about sustaining cognitive and socio-emotional judgement learned. It helps to develop skills of emotional resonance and widen horizons of learning.

Case 6.: 2 1/2 years ago, I suffered a stroke on one side of my body, where I lost the connection between my brain's motor control and body movement. By using the 5 methods and ideas mentioned above, I have learned to walk and use my hands to cope with everyday tasks.

Reframing with empathy

In 2017, I observed that my work was becoming dominated by organisational demands, reducing affective engagement. From this play to real life, the affective method could help to develop motives and reflections that strengthens the bonds between learners in a peer group. Empathy was important and there are two sides on it. Aaltola's (2017) empathy classification identifies two primary modes of empathetic engagement: self-directed and other-directed orientations. Both modalities prioritize experiential learning over structured reflective practices, emphasizing the primacy of lived experience in developing empathetic capacity. Ollila's Rendezvous Ethics framework contributes a third operational mode that extends beyond traditional self-other dynamics. This approach examines “the change in the individual's character and the influence of different encounter situations on the formation of personality,” (Ollila, 1997, pp. 144-145) positioning encounter-based interactions as fundamental to personal development processes. The growth-oriented modality identified by Ollila enhances individual resilience through encounters that occur in the liminal space between self and other. This framework conceptualizes encounters as “not only

a context, but also a sum of qualitative factors that arise from the encounter between self and other,” (Ollila, 1997, p 147) thereby establishing encounter dynamics as generative of new developmental possibilities. The integration of cognitive and affective domains facilitates the synchronization of spatial-social relationships within unconstructed outdoor environments. This synthesis operates through multi-sensory developmental processes that generate novel motivational frameworks and expanded perspectival orientations among participants.

Domains:

- Cognitive Domain helps to make the distinctions between experienced and felt.
- Affective Domain holds a position of a meeting place where the instructor and the peer group members meet.

Modes:

- Self- and other-directed modes: Boundary object serve the division of labour; active simulations serve as tool to start the group process and safety planning promote the rules.
- The Third mode: Encounters where the environment itself mediates the relationship, shaping interaction through shared sensory and emotional immersion. Embodiment is for pedagogy, storytelling by the campfire is about share and reflected meta-learning is about exchange

Professions:

- Social Workers: Often anchor the cognitive domain (Boundary Objects, Safety Planning, Storytelling)
- Adventure Educators: Often work in the affective/elemental domain (Simulations, Embodiment, Reflected Meta-Learning).

Project Phases:

1. Pre-Adventure: Boundary objects, simulations.
2. Adventure: Safety design, embodiment.
3. Chill Out: Storytelling reflected meta-learning.

Table 1.

Modes, domains, professions and phases in the context of Adventurous Social Work

Method	Primary Mode of Action	Domain	Professional Role	Phases
1. Boundary Objects	Self-directed → Other-directed	Cognitive	Social Worker	Pre- Adventure
2. Simulations	Other-directed → Self-directed	Affective	Adventure Educator	Pre- Adventure
3.Safety Planning	Self-directed → Other-directed	Cognitive	Social Worker /Adventure Educator	Adventure
4.Embodiment	Elemental/ “The Third”	Affective	Adventure Educator	Frontier Adventure
5. Storytelling	“The Third”	Cognitive	Social Worker	Chill out
6. Reflected Meta-Learning	Elemental/ “The Third”	Affective	Adventure Educator	Chill out

Table 1. The working methods are presented here in self- and other-oriented modes, which are adapted to be used as such in Social Work. In the third mode, the activity is directed towards the

outer periphery of social work and is more the responsibility of the adventure activity Educator. For young people, the threshold of adventure is crossed when they participate in the planning of the trip.

Conclusion

This model shows that blending adventure education with social and youth work can turn “the trouble” into opportunities for growth, belonging, and change. Anticipating failure is not about avoiding all trouble, but about cultivating resilience, self-awareness, and ethical maturity. Escaping the pitfalls of moralistic optimisation requires a renewed focus on context, reflection, and meaningful interaction—so every adventurer learns to embrace risk with wisdom.

You cannot change your future, but if you reframe your own story with elements of empathy, you can see that your previous journey has been worth taking. At the same time, you restore agency to yourself, and your sense of coherence improves. You become an actor, not a wanderer.

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Fossils: Traces of Nature Captured in the City

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This extended abstract describes the design, implementation, and evaluation of a thematic day at Gimnazija Šiška in Ljubljana, Slovenia entitled “Fossils, witnesses of the past.” The activity combined museum visits, outdoor fieldwork in Ljubljana, and use of the Actionbound application to enhance students’ knowledge of fossils and cultural heritage. Survey data and qualitative reflections indicate positive effects on engagement, collaboration, and recognition of fossils as natural and cultural heritage. While knowledge retention diminished over time, results highlight the potential of integrating informal learning contexts with digital tools for secondary education.

Introduction

As natural sciences, biology and geography gain their knowledge from observing and interpreting the natural world. Fieldwork provides students with the opportunity to apply authentic scientific practises, promotes environmental awareness, and increases motivation (Rickinson et al., 2004). Although secondary school curricula encourage outdoor learning, organisational barriers, time constraints, and reliance on traditional teaching methods often hinder its implementation (Behrendt and Franklin, 2014).

To close this gap, Gimnazija Šiška in Ljubljana, Slovenia, has integrated “theme days” into its curriculum. Theme days are designed to support informal learning outside the classroom, by focusing on specific scientific topics while encouraging interdisciplinary approaches and student engagement. For the 2024/25 school year, palaeontology and fossils have been chosen as the central theme. While this topic is popular among children in early education, it is significantly underrepresented in secondary school curricula. The theme day for first-year students was entitled “Fossils, witnesses of the past”, and was designed to introduce students to palaeontology through direct encounters with fossils in a museum and urban context. The educational basis for the activity was the guidebook *A geological tour of Ljubljana - Natural stone in cultural monuments* (Novak, 2016), which presents examples of fossil remains located in decorative natural stones on the facades of notable buildings in the city centre of Ljubljana. The programme was designed to help students explore fossils as natural and cultural heritage while developing scientific knowledge, social skills, and digital competences through the use of the interactive Actionbound application.

Actionbound is an application that supports the creation of customised, location-based treasure hunt and guided tours. It enables teachers to incorporate questions, tasks, multimedia elements, and

navigation tools, thereby aligning educational content with the real world. Importantly, Actionbound provides opportunities for group collaboration, instant feedback, and teacher monitoring (Actionbound, n. d.). In this project, the application was used to help students identify and analyse palaeontological features in urban architectural stone, connecting natural heritage with cultural heritage in an engaging way. The aim of this extended abstract is to describe the design, implementation, and evaluation of the theme day, with a particular emphasis on the integration of outdoor learning, museum education, and digital fieldwork tools. We present the results of pre- and post-activity surveys, discuss student learning outcomes and social-emotional development, and evaluate the role of technology in promoting engagement.

Methodology

The project was carried out with first-year students [N=100; ages 14 – 15] at Gimnazija Šiška in Ljubljana, Slovenia. The activities were designed as part of a theme day connecting biology and geography through palaeontological content. Students participated in three main activities: (a) an online survey, (b) a guided visit to the Slovenian Museum of Natural History, and (c) an outdoor fossil exploration in the city centre of Ljubljana using the Actionbound application. The activity and the main palaeontological concepts covered during the museum visit were organised in cooperation with educators from the Slovenian Museum of Natural History. The activity was carefully planned in advance, including a treasure hunt route through the city centre of Ljubljana. The starting point was the foyer of the Ljubljana Skyscraper, where fossilised remains of lithiotid shells (*Lithiothis*) can be found on the walls. From there, the students followed a series of locations indicated in the application. A map, questions, and multimedia prompts were embedded in Actionbound to support students in their exploration. The treasure hunt consisted of six fossil “stations” that students had to locate and document. The target fossils included lithiotid bivalves, ammonites (*Ammonoidea*), ichnofossils, rudist bivalves (*Hippuritoida*), cone snails (*Conidae*), and brachiopods (*Brachiopoda*). Each page contained embedded information sections as well as interactive tasks such as quizzes, multimedia submissions, and short reflection questions.

The Actionbound app requires an internet connection at the beginning and end of the activity. The content, including the maps and tasks, was downloaded to each group’s mobile device, in advance to ensure that the activity could be completed without an internet connection. Students worked collaboratively in groups of three to four, and followed the app’s prompts and instructions to progress through the activity. The tasks were composed to follow the interactive features of Actionbound. Students completed tasks that required photo or video documentation, answered quiz questions in text or multiple-choice format, and sequenced items to demonstrate their conceptual understanding. Scoring was applied to encourage motivation. Points were awarded for correct answers, while incorrect answers resulted in penalties. The teacher had access to the students’ results via the Actionbound online platform, and was able to monitor, assess and then provide feedback. The evaluation data was collected through online surveys conducted at three intervals: before the museum visit, immediately after the visit, and three weeks later. The online evaluation was created jointly with educators from the Slovenian Museum of Natural History. Questions were related to knowledge of fossils, natural heritage, and the museum, as well as perceptions of outdoor learning and the application of Actionbound.

Results

Responses to the survey confirmed the museum's strong appeal to visitors (Mujtaba et al., 2018). The most common recommending of the museum to visitors were the interactive explanations, the fossil collections, and the opportunities to discover new knowledge. Remarkably, these positive perceptions persisted even three weeks after the visit, emphasising the museum's lasting impact on student attitudes. The exploration of fossils supported by Actionbound application showed a high level of engagement. Students explored the urban environment in small groups, and searched for fossils located in building facades. They emphasized that the activity was particularly engaging because of its digital and interactive design, which involved photographing fossils, completing quiz-style questions and reflecting on the interconnections between natural and cultural heritage. Many students also reported that the activity with the app was more fun and interactive compared to traditional worksheets. The digital treasure hunt transformed the city centre into an open-air geological museum, that sparked curiosity and fostering collaboration. Teachers observed that students using the app were more motivated, collaborated better and memorised the concepts of fossils better than previous year groups who relied on paper-based activities.

Students gained factual knowledge about fossils, their classification, and their importance as geological evidence. They also practised the use of ICT for learning and developed spatial orientation skills in an urban context. The group-based exploration strengthened collaboration, communication, and social bonds (Malone, 2008). Students worked better with their peers, showed perseverance in completing tasks, and increased their confidence in contributing ideas. Through direct encounters with fossils, students reflected on the importance of protecting natural and cultural heritage. Self-assessment tasks encouraged them to formulate their attitude towards environmental protection. Analysis of the survey data suggested that the familiarity of certain fossil specimens (e.g., ammonites, brachiopods) increased immediately after the museum and fieldwork experiences. Students also demonstrated improved recall of Slovenian natural heritage, and frequently mentioned fossils alongside other examples such as petrified wood and mammoth remains. However, some of these gains diminished after three weeks, emphasising the challenge of retaining knowledge in the long term without further reinforcement. Student satisfaction with outdoor learning was consistently high, with most rating the experience as enjoyable and educational. A comparison of satisfaction immediately after the activity and three weeks later showed that the positive attitude remained, albeit at a slightly lower intensity.

Discussion

The results emphasise the educational benefits of combining museum visits, urban fieldwork, and digital applications. Museums provide authoritative, authentic encounters with fossils, while urban fossil sites enable learning in the students' immediate environment. The Actionbound application bridges these contexts, and provides a fun, interactive activity that promotes cognitive, social, and emotional development. One of the obstacles to fieldwork in secondary school is the perception that fieldwork could take place in a remote or isolated natural environment. The project demonstrates that urban environments are themselves rich learning spaces, with fossil building blocks that provide accessible opportunities for geological inquiry. By utilising local resources, schools can integrate fieldwork on a more regular basis and without great logistical effort.

The use of Actionbound illustrates how digital technologies can increase motivation, structure learning, and provide feedback in real time. The students appreciated the playful aspects of the

treasure hunt, which fostered curiosity and perseverance. Importantly, the technology also provides teachers with valuable data on student performance and engagement. Despite its successes, the project had some limitations. Firstly, the long-term retention of palaeontological knowledge was limited, suggesting the need for follow-up lessons or integration into broader curriculum sequences. Secondly, although the basic version of Actionbound is free, there is a charge for the advanced features. Finally, the study was limited to a single group at one school, which may limit its generalisability.

Conclusion

The theme day “Fossils, Witnesses of the Past” at Gimnazija Šiška, Ljubljana illustrates how biology and geography can be taught in synergy through experiential and interdisciplinary approaches. Through a combination of museum visits, fieldwork, in the city and digital games, students engaged with fossils in a meaningful way, promoting scientific knowledge, environmental awareness, and social-emotional skills. The results emphasise the effectiveness of informal learning in promoting engagement and connecting students to their natural and cultural heritage. The use of Actionbound demonstrated the educational potential of mobile applications for outdoor learning. The interactive and entertaining features made the exploration of fossils accessible, motivating, and memorable.

Prospective activities could compare the results in different subject areas, investigate the long-term impact and explore strategies for a balance between digital and non-digital approaches. The intertwining of natural and cultural heritage in the centre of Ljubljana, which is an open-air museum in itself, allows us to include other content in the "treasure hunt" in addition to fossils.

In conclusion, this project confirms that nature-based subjects such as biology and geography benefit from authentic, hands-on learning outside the classroom. By treating the city as open-air museum, educators can inspire students to appreciate their natural and cultural heritage while developing essential scientific and social competencies.

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Shattering the Silence: Menstruation Experiences in the Outdoors and Beyond

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Background

This presentation shared the process and findings of my Master's research on menstruation experiences in the outdoors and PhD research on holistic narratives of menstruation experiences. Stigmatization around menstruation prevents necessary research from being conducted and the resulting lack of knowledge prevents gender equality and participation in outdoor pursuits. Menstruation has been distorted by patriarchal society as an experience to be ashamed of, to hide, and to limit (Peranovic & Bentley, 2017). Thus, menstruation is often regarded as a personal problem rather than a societal one. Outdoor leaders are responsible for ensuring participants feel included, respected, and supported throughout an outdoor experience. Yet, there exists a gap around how menstruation is discussed and supported in outdoor settings (Botta & Fitzgerald, 2020; Lynch, 1996). The outdoors provides a unique context to experience menstruation as resources are limited and group dynamics affect the individual experience. Further, research suggests that changing the culture around menstruation in the outdoors can encourage wider social and cultural perceptions around menstruation.

Master's Research Dissertation

My master's dissertation was an embedded multiple-case study (Yin, 2018) situated within the critical paradigm and was grounded within a feminist approach utilizing online questionnaires gathered menstrual experiences of outdoor leaders and individuals who participate in a variety of outdoor activities. Of these participants, four were chosen to engage in an online video interview. Responses were reviewed, categorized, and synthesized to formulate an overview of menstrual experiences in the outdoors. Although experiences of menstruation in the outdoors are unique to everyone, many resonances were identified throughout the shared experiences. Key resonances include: sense of self, self-sufficiency, compromise, environmental stewardship, wants, mental and physical load, and safe spaces (Ludington, 2020).

People Who Menstruate Findings

Every individual shared how they often compromise their own comfort to retain inclusion and privacy. Many shared that they compromised on what type of menstrual care products they used (for comfort and sustainability), how often and where they would change products, and felt limited on sharing their needs and experience with others in the group. Many participants stated they believe it is valuable for everyone (men included) in the outdoors to have a better understanding of what it takes to maintain good menstrual health and to be open, respectful, and considerate when planning and embarking on outdoor activities.

Outdoor Leader Findings

The findings for the Outdoor Leader responses present overlapping themes to the individual responses as they included the Outdoor Leader's personal experience while leading and caring for a group. The responses included leaders considering their own menstrual experiences while leading a

group as well as assisting participants to navigate their menstrual experiences in an outdoor group setting.

Outdoor Leaders are in a unique position to create a safe space for participants. In order to achieve any group goal, participants need to respect, trust, and support each other. Having a good menstrual experience while in the outdoors with a group is reliant on the outdoor leaders' ability to create a safe space for all participants. Besides providing knowledge on how to maintain good menstrual hygiene, outdoor leaders need to be prepared to adjust group goals and activities to ensure participant comfort - such as extra bathroom breaks, longer and more private bathroom breaks, recognizing that menstrual affects an individual's mental and physical capabilities differently. The responses I received spoke to outdoor leaders encouraging bonding amongst their participants, normalizing individual experiences, and fighting stigmas about menstruation. The creation of a safe space requires an excellent outdoor leader and willing participants.

PhD Research Thesis

The Master's dissertation led to my PhD research exploring how we can shatter the silence around menstruation. I interviewed menstruators to elevate and validate their experiences, curating their stories through narrative inquiry and creative expressions (Clandinin & Connelly, 1990, p. 4; Denzin & Lincoln, 2018, p. 100). The key spheres of influence of social, cultural, and political were explored to better understand the personal menstruation experience. Concepts such as self-surveillance, sexualisation of female bodies, isolation, silence, men's reactions, pain, lack of effective and empathetic healthcare, and desire to share more were discussed with each participant (Ludington, 2025). For those who shared creative expressions, the importance of mind and body connection was highlighted. Participants noted that this research sparked an interest to learn more about menstruation, recognition of how impactful it is to everyday life, and a drive to increase knowledge and awareness in their spheres of interactions. Both of these research projects demonstrate the vast intersectional influences onto an individual's experience of menstruation. It is important for outdoor enthusiasts and leaders to increase their awareness of all of these influences, to consider how they may impact their own lives and those of others, to create a more caring environment for all.

“What can men do?”

This question has been asked at every presentation of these research projects. An important, yet disappointing question. I ask in reply, what are male outdoor leaders already doing to ensure their participants are cared for? This question, in many ways, confirms the stigma and reaffirms that people who menstruate have not been supported in the outdoors. My recommendation to men is first educate yourself, learn the basics of menstruation, practice and increase empathy, create an open space for talking about menstruation, and actively listen to menstruators when they share their experiences. Many cultures maintain beliefs that menstruation causes women to be mentally unstable and physically incapable compared to men. These are narratives that have been passed down and spread for centuries, oftentimes linked to menstruation. It will take an immense effort to rewrite these stories so that menstruation is not something to be ashamed of, something to hide, and something that limits women. There will be resistance from religions, cultures, and those who are comfortable living in a patriarchal society. Big changes start with small groups. Outdoor culture is a prime place to encourage this change. We need group support, respect, and understanding to achieve objectives in the outdoors. This cannot be achieved if half of the group cannot discuss or

gain support for a natural, healthy bodily function and believe they cannot achieve the same as others based on taboos and false information. It will take everyone, men, women, and all identities to create inclusive, safe, and supportive environments for all people who menstruate.

Closing points

Moving forward, we can utilize the outdoors as a platform to encourage social and cultural change of the perception of menstruation. As it is necessary to discuss and prepare for all natural bodily functions in the outdoors, it is important to ensure that menstruation is included. While the responses in both of these research projects may make it appear that menstruation is the issue, in reality, it is how menstruation is viewed socially that is the problem. If we restructure group outdoor activities to be accessible and open to everyone regardless of menstrual status, we could all enjoy the outdoors together. This will involve open communication, trial and error in structure and scheduling, product innovation, and empowering individuals to continue to share their experiences. For outdoor leaders especially, we need to change the culture in training and expectations to include thorough training on how to provide environments for good menstrual experiences. This can be done during standard training, through expanding education on what menstruation is, how it can be safely and hygienically cared for in outdoor settings, and exploring why there are still stigmas around it. As our cultures are evolving to recognise disparities within our communities, the social and cultural influences on menstruation can also evolve to create a better experience for all. Participants in my research found empowerment and the strength to reclaim their bodies and stories through sharing stories and creative expressions. To achieve gender equality and inclusivity in the outdoors, it is necessary to engage with those who menstruate and work together to develop better structures to support menstruation in the outdoors. By sharing our stories, demanding equality in experiences, and working towards acceptance, we can break the silence and free bleeding from stigma.

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Risky play as an educational challenge from the perspective of teachers and parents

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Risky play is an engaging and exciting form of play that mainly takes place outdoors. It includes an element of risk, and consequently the possibility of getting hurt, albeit mostly with minor consequences (Sandseter, 2007; Sandseter, 2009; Kvalnes & Sandseter, 2023).

The benefits of risky play are widely recognised in national and international literature. It enables children to explore their limits, develop social and problem-solving skills, and hone their risk management abilities (Beaulieu & Beno, 2024; Greenfield, 2004; Sandseter et al., 2020). It also promotes physical health, mental well-being, and perceptual-motor development (Brussoni et al., 2012). Numerous studies (Apter, 2007; Brussoni et al., 2015; Masseretti, 2023; Masseretti & Schenetti, 2024) have shown that the advantages extend far beyond mere enjoyment; risky play provides a natural training ground for acquiring essential skills (Gray, 2013; Schenetti & Li Pera, 2021). By participating in activities involving physical and mental challenges, children learn to recognise and address real dangers, thereby enhancing their risk assessment abilities and fostering a greater self-awareness and understanding of their capabilities (Apter, 2007; Smith, 1998). In addition to developing motor skills, this type of play provides valuable opportunities for social, emotional, and cognitive growth (Farmer et al., 2017; Lavrysen et al., 2017; Little et al., 2011; Sandseter et al., 2020). Furthermore, overcoming physical obstacles and confronting personal fears can strengthen self-esteem and resilience, both of which are essential for long-term psychological well-being.

The Position Statement of the Canadian Paediatric Society (Beaulieu & Beno, 2024) clearly supports risky play and encourages paediatricians to promote it to families as an effective biopsychosocial approach to preventing and managing problems such as obesity, anxiety, and behavioural disorders (Brussoni et al., 2015; Xiong et al., 2017).

This study explores teachers' and parents' perceptions of risky play among preschool children in Italy. The analysis is primarily guided by the social constructivist paradigm, and it recognises social reality as a product of human interactions (Berger & Luckmann, 1966). This approach rejects the notion of an objective social reality existing independently of individuals. Instead, it emphasises the role of human interactions in constructing reality. From this perspective, truth is not absolute, but rather emerges from communicative processes influenced by cultural, historical, and social contexts. Moreover, the theoretical framework draws inspiration both from international studies on outdoor education and learning (Rickinson et al., 2004; Waite, 2011) and from *Educazione all'aperto* in the 0–6 age range, understood not only as an educational method but as a pedagogical approach that values the relationship between human beings, the world, and their reciprocal connections (Schenetti, 2017, 2022, 2023). Finally, we need to consider the ecological model of human development (Bronfenbrenner, 1986, 2010). This model provides a systemic interpretation of the relationships between individuals, environment and educational context. It is useful for explaining the decline in children's free outdoor play and independent mobility, which is a widespread phenomenon in many urban areas (Gray, 2013; Shaw et al., 2015).

Differently from other countries, Italy still lacks studies that specifically explore parents' views on the subject. The present research therefore aims to address this gap in the national literature and contribute to educational reflection and the development of more informed practices.

The objectives of the research are: to gain an in-depth understanding of teachers' and parents' perceptions of risky play; to identify the factors that facilitate and hinder adventurous play at school and in other contexts of life; to explore the role declared by adults during risky play; to ascertain awareness of the possible benefits. The decision to focus on adults is linked to the fact that they play a crucial role in encouraging or discouraging children's adventurous play experiences, considering the age group under study (Dweck & Molden, 2000). The aim is also to investigate whether there are specific personal, cultural and environmental factors that hinder or facilitate experiences of risky play. Finally, the study seeks to verify whether, in taking a certain position on risky play, teachers and parents take into account only contingent factors or whether they also consider the medium and long-term effects. To answer these questions, a qualitative approach based on semi-structured in-person interviews was adopted (Cardano & Ortalda, 2021). These were supplemented by field notes (Sorzio, 2015). Primary data were supplemented with secondary data from various sources, such as information taken from school websites and technical documents provided by teaching coordinators and school managers, as well as personal notes provided by teachers, in order to identify any discrepancies (Phillips & Hardy, 2002).

For the analysis of primary data, we adopted the Stepwise-Deductive Induction approach (Tjora, 2019), whose aim is the development of a conceptual generalisation. We started inductively from the data to identify codes strongly linked to it, either referring directly to expressions used by the interviewees or using terms extracted directly from the analysed material. A thorough coding of all available material enables a significant proportion of codes to be discarded, thereby reducing fragmentation and facilitating subsequent analyses. The code grouping phase is a crucial step that bridges the gap between strictly data-based analysis and the subsequent theoretical elaboration. This transition enables greater consistency and meaning to be attributed to the collected data, contextualising it within a broader conceptual framework. The conclusion of the process is at the end of the inductive phase with the identification of 'C results' (Tjora, 2019). At this point, the analysis evolves from induction to abduction. Indeed, it is precisely the existing theories that enable researchers to recognise whether a result is unexpected or surprising (Timmermans & Tavory, 2012). This leads to conceptual development, in which the initial hypotheses are reworked and transformed into more structured theoretical categories.

As for secondary data, we used Summative Content Analysis (Hsieh & Shannon, 2005), which focuses on the choice of terms and their frequency of use to infer the meaning given to the phenomenon under study.

Preliminary results highlight the tension between recognising risky play as an educational opportunity, and the personal and social pressures restricting its practice. Teachers tend to be more open to risky play, influenced by their training and the context in which they work. Parents, on the other hand, experience a more marked contrast between their own carefree childhood and their need to protect their children. While adult supervision is often seen as a way to balance autonomy and safety, risk is frequently rationalised in educational terms, reducing, in this way, its intrinsic value. Schools can play a crucial role in balancing these tensions by creating an environment that allows children to enjoy stimulating, inclusive, and safe play experiences (Nowogrodzki, 2025).

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Enfant Sauvage and Experiential Learning We aren't born human, we became it

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Introduction

This study aims to explore the educational potential of non-directive educational experiences, with particular attention to the dimensions of self-learning that are sometimes not fully expressed in today's educational models.

The study focuses on the relationship between learning that emerges spontaneously from direct interaction with the environment (natural or instinctive educational developments) and learning that is structured through the intervention of practices, languages, and mediations specific to educational/cultural processes, with a focus on educational contexts.

To this end, the analysis begins with the emblematic figures of the so-called “wild children” (Macinai, 2009; Centini 2015), also known as *enfant sauvage*, in order to pursue the goal of understanding how individual experience and the environmental context contribute to the formation of the human being, and how a pedagogy centered on experiential learning can offer an educational strategy in educational/school contexts that values the wisdom inherent in concrete and instinctive experience as an integrative proposal to models that do not provide for such openness.

In conclusion, it is argued that experiential learning can represent a significant methodology for facilitating the reconnection of individuals with their own nature and with that which is other than themselves (external) through the rethinking of educational practices, restoring centrality to authentic, instinctive, contextualized, and therefore complex experiences.

The “selvatico” as otherness to be normalized

The term “selvatico”, derived from the Latin *silvaticus*, refers to plants that grow spontaneously and creatures that have not undergone a process of domestication (Treccani, 2025). This adjective, also applied to people described as gruff or surly, suggests a negative view of what is “wild” and, consequently, uncivilized. In this regard, it is interesting to note how, in everyday language, “selvatico” translates into a meaning of intractability and rejection of civilization (Centini, 2015).

The tension between what is ‘selvatico’ and what is ‘civilized’ runs through much of the history of education and beyond: the ‘wild’ is associated with the formless, the undisciplined, that which escapes rational control. It is no coincidence that whenever we are faced with what we perceive as other – unsocialized, unurbanized – the tendency is to civilize it, if not reject it altogether. The figure of the *enfant sauvage* embodies this paradox: a human being who, due to a lack of contact with culture, occupies a liminal zone between the human and the non-human.

Exploring the literature reveals a panorama of approximately 80 documented cases of *enfant sauvage* found in wooded areas, with the earliest reports dating back to the 14th century (Centini,

2015). Wild children are individuals who, for various reasons, have grown up isolated from human contact since early childhood, often in natural environments and sometimes in the company of animals. This condition has led them to grow and evolve according to patterns other than those culturally defined as ‘typical’, making them the subject of interest for scholars from various disciplines, including genetics, psychology, anthropology, pedagogy, etc. *Enfant sauvage* represent extreme cases that challenge the concept of human development, highlighting how many of the skills considered innate are the result of learning processes through the imitation of cultural products and socialization. The process of “domesticating” wild children reflects the desire to reintegrate them within the boundaries of cultural norms. As Ludovico (2006) observes, in numerous historically documented cases – from Victor of Aveyron to the wolf girls of Midnapore – the response of educational and scientific institutions was always to subject them to intensive re-education so that they could adhere to the linguistic, moral, and behavioral codes of human civilization.

A particularly emblematic contribution to the debate on nature and culture is offered by the pioneering study conducted by Winthrop and Luella Kellogg in 1933, recounted in the book *The Ape and the Child*. In this experiment, the couple simultaneously raised their son Donald (9 months old) and a chimpanzee, Gua (7 months old), for nine months, with the aim of observing the influence of the educational environment on the behavior and development of the two creatures. The aim was to investigate the extent to which learning and socialization could shape human development compared to animal development (Ludovico, 2006). In this perspective, as J.F.I. Tafel observed in the 19th century, “man is only human in relation to other men, and without this education, man remains an animal”. Numerous cases of wild children are examples of this. Interest in *enfant sauvage* highlights a well-known but fundamental aspect: education is never neutral, but intrinsically cultural. Even what may appear “natural” – such as language learning – is in fact the result of long and silent exposure to models, contexts, and symbolic structures.

In the case of wild children, deprived of linguistic and emotional human exposure, significant impairments in cognitive and communicative development are observed (judging from our perspective). Their ‘language’ is that of the forest and the animals that cared for them. However, the response of ‘civilised’ people was to ‘retrain’ them according to standards that reflected specific social values and cultural norms. In this context, questions arise about the legitimacy and limits of such normalising operations.

The figure of the *enfant sauvage* also took on significant philosophical resonance in Rousseau, who in his *Émile ou De l'éducation* implicitly drew inspiration from cases of children raised far from society to propose a natural educational model based on authenticity, natural education, and liberation from social conditioning.

For Rousseau, the ‘good savage’ became an argument against the authoritarian pedagogical doctrines of his time and, as often happens when one does not find fertile ground in which to sow, accusations were levelled against him that led to the censorship of the text and subsequently drove the author into exile..

Today's education and Experiential Learning

Today, as then, education risks becoming a process of standardization rather than one that values the differences in individual experiences and learning times. Piergiorgio Reggio (2013) identifies some conditions that are emblematic of the contemporary way of experiencing that undermine the authenticity of learning, including: the acceleration and immediacy of experience, which

compresses time to the point of emptying it of depth; and fragmentation, which breaks the continuity between experiences, generating disconnection and loss of meaning. These dynamics are not limited to the social or cultural sphere, but are also reflected within schools, which often end up replicating external models without questioning them. In fact, traditional teaching practices, marked by tight curricula and rigidly compartmentalized knowledge, can contribute to this discontinuity, hindering meaningful, reflective, and potentially transformative learning. In this context, experiential learning – especially in its outdoor form – is a pedagogical tool capable of counteracting the widespread virtuality and artificiality of experience.

Through direct interaction with the environment, physical involvement, and the active construction of knowledge, this approach restores value to the time spent in the process, promotes continuity between experience and knowledge, and renews the connection with living things. From this perspective, school can once again become an authentic space for experience, where knowledge is intertwined with feeling, doing, and thinking, and where learning is not just the acquisition of content, but the transformation of the individual in relation to themselves, others, and the living environment.

Guiding an experiential learning process means, for educators, learning to relinquish control, allowing time for the experience to unfold in all its richness and entrusting it, without haste, with the responsibility of generating meaning. It is in this interpretative suspension that learning reveals itself not as an accumulation of knowledge, but as a transformative opening. From this perspective, concrete individual experience becomes the keystone for accompanying people in discovering their own unique way of evolving, recognizing themselves, and constructing their own being in the world.

However, authentic educational experience cannot be limited to simple exposure to events, but requires an interruption in the flow, a discontinuity that breaks the routine and allows for a new rhythm of acting, thinking, and being. This shift produces a potentially destabilizing ‘void’, but one that is necessary for meaning to emerge. This is where experience becomes transformative: when it breaks the continuity of the known and opens a threshold to the unknown (Reggio, 2013).

It should be noted, however, that one of the most common mistakes in educational professions is not to attribute cognitive value to intuition and emotion, attributing credibility only to rational knowledge. Yet the willingness to open to experience often arises from preverbal signals, from bodily sensations which, if recognized, can become levers for deep learning.

For this reason, those involved in educational processes should take on a discreet accompanying role, like that of a choreographer (Beard, 2023) who observes from the sidelines and facilitates movements, without ever replacing the dancers. Since each experience is unique and personal, it must be continuously replanned, while always leaving room for the unexpected.

Authentic experiential learning allows lived experience to express itself, take on meaning, and produce new knowledge. But this is only possible if one is willing to give up, at least in part, the temptation to exercise total control over the timing, methods, and results of learning.

As facilitators of knowledge and skill acquisition processes, it is essential to recognize the ability of children – who are not yet saturated with culture – to question experience with a virgin, poetic, questioning gaze. They know how to recount what they experience and encounter, and our task then becomes to listen to them, welcome their questions, and wait for meaning to emerge and manifest itself.

In simple terms, the *enfant sauvage* were connected to nature and not to culture; today's children are steeped in culture and risk no longer recognizing their nature. Experiential learning, therefore, if

properly designed (Beard, 2023) and stripped of dogmatic cultural rigidity, can represent a bridge between these two poles, an opportunity to reclaim our “wildness,” to rediscover and recognize the original elements that constitute us, and to return – pedagogically and humanly – to becoming a little *selvatici* again.

Conclusions

Aware of the summary of the arguments presented, it nevertheless seems necessary to rethink the role of experience as a matrix for learning, representing a pedagogical challenge that translates into proactive and operational goals.

Experiential learning, when understood in its original and outdoor form, offers a way to reopen the space of possibility: it is not about teaching something, but about facilitating the emergence of meaning from lived experience. This requires adults – educators, trainers, pedagogues – to take on a non-directive role, able to dance on the margins of the process, observing, listening, and supporting the relationship between the subject and their becoming.

In this sense, returning to the *selvatico* does not mean rejecting culture, but rather freeing ourselves from its totalizing claim. Recognizing the value of the *selvatico* in education means restoring space to the pleasant, instinctive, sensitive, and creative dimensions of learning.

Experiential education seeks to promote a rethinking of education which, “if it coincides with the educational practices implemented in our society, [...] can only serve the dominant tradition. In other words, it can only transmit the very cultural models and attitudes and values that have led to the current situation” (Bardulla, 2006, p.107). From the perspective outlined here, experiential learning is therefore presented as an operational proposal that is intertwined with institutional and school models. The intention, therefore, to quote Illich, is not so much to *deschooling* the school, but rather to contaminate it with practices capable of generating involvement, activation, and pleasure in learning.

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“Selvatico” and Urban Adventures Redefining the dichotomies between “natural” and anthropic environments through the concept of “selvatico” and the forest school experience.

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Selima Negro is an independent researcher with a degree in Education Sciences, her thesis on the pedagogical dimensions of risk in Outdoor Education. After working as an educator and environmental educator she established the association “Fuori dalla scuola” (Out of School) in 2015. This led to the creation of a Forest Kindergarten in collaboration with other families, and in 2018 it expanded to include a project for children over six years old. Since then, Selima has been actively engaged in providing training for practitioners, teachers, and parents. In 2019, she published the book “Forest Pedagogy: Educating in Nature to Raise Free and Healthy Children” and has continued to research and promote this educational approach across various contexts.

I’ve been doing forest school in Italy (as a practitioner, trainer and independent researcher) for 10 years and, when I read the title of the conference (citing place-based education and urban adventures), I asked myself: is it possible to come from a niche experience, that is supposedly confined in the woods, and having something significant to say for people doing Outdoor Education in many different places and environments? My own question made me focus on how many symbolic boundaries still influence the perception and the practice of (western) Outdoor Education, many stemming from implicit dichotomies that still impact how we construct the meaning of what we do. Looking at the history of Outdoor Education, its origin is embedded in (at least) one of these dichotomies: the concept itself of “Outdoor Education” stems from the reaction to “indoorization” (Bortolotti 2019): only when there had been a significant shift in lifestyle towards indoor spaces in the 19th century, the need to define the concept of being outdoors arose as an intentional and meaningful choice, and not just as shared everyday life experience.

At the International Outdoor Education Research Conference in Tokyo in 2024 I listened to the presentation “Autism Spectrum Disorder and the joy of climbing” (Noguchi, 2024) and I found that the initiative presented had many similar aspects with our forest school practice, even though most of it was indoors (at climbing gyms). Once again, it made me realize that it is not just about how long you stay outdoors but how and why: even if, as a forest school practitioner, regular and repeated sessions outdoors are an essential prerequisite (Hume 2024), what resonated with me was the continuity with the indoors practice as well, and the idea that the same core values applied indoors and outdoors.

This feeling of deep understanding of a practice apparently so different from mine, sparked in me the need to look at our own practice and find out how implicit dichotomies impacted our experience. In fact, with the association Fuori dalla scuola (<https://fuoridallascuola.wordpress.com>) we have been going everyday outdoors since 2014 with a group of children from 0 to 12 years old (they attend forest school instead of traditional school): what we call “pedagogia del bosco” in Italy is a place-based version of Skovbørneshave, Waldkindergarten or Forest School. The ethos is

probably very similar, the application may differ from what you may have experienced as forest school in your country.

I started reflecting on the two typical (opposite?) reactions when we try to explain people what we do:

1. “Of course, children learn so many things and do meaningful experiences in your program, outdoors everything is easier and more beautiful!”
2. “But... then how will they adapt to the *real* world?”

Even if the first reaction seems more positive, and the second one more doubtful, both express the same dichotomous view of the outdoors: even when it is idealized, it is still considered a different “world” from which you must come back to live your everyday life. The same dichotomy is also present in our language, values and practice: for example, I myself have often read with the children the illustrated book by Emily Hughes “Wild” (2014), about a feral child who is only happy in the forest living with other *wild* animals and is incredibly unhappy when taken to *civilization*. At the same time, I think that there are other narratives and experiences that inform our practice of forest school and “make it special” (Hume 2024), so I looked through the documentation of our activities over the years for examples of when some of these boundaries were redefined.

The boundary between outdoor and indoor play

We always bring with us the standard “Forest School kit” with ropes, tools etc., but what happened when children asked to bring with them something unexpected (for the adults’ idea of what is appropriate to take outdoors, in a Forest School setting)?



1 Children from the program C.A.L.A.mite in Montevécchia (Italy)

One day my daughter brought some of her Barbies to play with her friends in forest school (Figure 1). We had some doubts about the opportunity to let her bring a plastic, commercial toy that could

interfere with the immersion in natural elements that we were aiming for. Yet, as forest school practitioner we try not to have prejudiced opinions about children's play and not to anticipate problems that may or may not occur, so we let it happen and kept our observations going. The Barbies were dressed up (especially Ken!), seemingly ready to go to a party, and then seated on small rocks put in a circle, around a small fire made of yellow leaves. They actually integrated in the outdoors setting very well, confirming the inclusive nature of forest school!

The boundary between wild and anthropic places

We generally try to choose the “wildest” woods in our area to explore during our sessions, but what happened when the children decided that the most anthropic element in that place was also the most interesting (Figure 2)?



2 Children from the Asilo del bosco (Forest Kindergarten) di APS Fuori dalla scuola a Missaglia (Italy)

A couple hundred meters ahead of the green bar there is a beautiful stream, with rocks, puddles, sticks to play with... and many times we have been confronted with the reality of children being more interested in climbing the bar at the beginning of the dirt road, inventing many sensory, movement and social games for the best time of the morning. What was perceived by adults as a mere tool, signalling the beginning of the “wild” place, became a source of inspiration for numerous research about bodies, spatiality and power.

The boundary between outdoor and indoor spaces at base camp

Our base camp is a private garden at the outskirts of a countryside village. Since we started our Forest Kindergarten, we started to become aware that there are many ways you can define the outdoors: are we *out* when inside a fenced space? Do we need to have the sky over our heads, or looking to the rain under a shelter means being outdoors as well? Moreover, at some point we felt

the need to add some indoor spaces in our base camp, and we discovered that there is a continuum of possibilities between indoors and outdoors as well: a shed with only three walls, temporary shelters, walls that can be used also on their outside, a workshop with big, glass doors that are always open (Figure 3 & 4).



3 The three walls shelter at the base camp of the program C.A.L.A.mite in Missaglia (Italy)



4 Map of C.A.L.A.mite's base camp in Missaglia (Italy), done as part of the documentation of a yearlong socio-dramatic play about shops and restaurants made by Alessandra Fossati.

While playing the children inhabit and transform all the spaces, moving between indoors and outdoors for very practical purposes, bringing in and out the materials they need, using doors, windows and walls as meaningful spaces and not only barriers.

The boundary between the forest and the urban environment

Having spent some years doing forest school every day, we felt the need to diversify the experiences of our children, and we started to organize recurrent day trips to bigger towns and cities not far from our base camp, both with cars and public transport. The difference in environment and how it impacts on the children experience should be obvious, but at one point I started to notice that when we go *out* from the forest *into* the city, children use the same strategies they learnt *in* the forest to explore, take decisions, move as a group and take care of their needs: once forest school children, always (and everywhere) forest school children (Figure 5).



5 Different moments of one day trips in Milano with C.A.L.A.mite (APS Fuori dalla scuola), G.A.I.A. e A.L.I. (APS Casa Pedagogica).



6 A group of children from C.A.L.A.mite in Milan (on the right) and a group of children at Forest School Singapore (on the left) with the caption: “The way HomeNest walks the corridor is multi-directional: backward, forward, left, right, sometimes up and down. Hence it takes a loooooong time.”).

For example, while doing a comparative research between forest school in Singapore and in Italy with Darren Quek (Negro, Quek 2024), I noticed that the way children in Singapore embodied the process of exploration and decision making not automatically interpreting the straight road as “the” direction, is really similar to what happens when our children arrive in a unknown urban environment and familiarize themselves with the possibilities that it offers to them (Figure 6).

A special relationship with place through the “selvatico”

I identified two main factors that make it possible to redefine boundaries and deconstruct dichotomies in our practice. On one side, the child-led, play based nature of the pedagogical approach; on the other side, the relationship with places that creates space and time for the more-than-human elements to express their agency. A concept that helped us understand and support this kind of experiences is expressed by the Italian word “selvatico”.

In Italian there are two words that are translated both with “wild” in English: “selvaggio” and “selvatico”, but they have different shades of meaning. “Selvatico” means that it doesn't depend on humans, but may have contacts with them, may interact and may share the same space (Morgan A., Negro S. in press). The Italian anthropologist Mauro Van Aken defines “selvatico” as a place where complexity is represented through the nonlinear interconnections of many different elements, thanks to the non-human elements that do not organize themselves to comply to human needs (Van Aken M. 2015). In my experience, through frequent spontaneous play in a place which is “selvatico”, children learn to perceive the world as **not** organized around the needs of human beings and they start to navigate boundaries beyond the expectations of adults (that often still operate on that assumption). Until the “selvatico” is not just a place anymore, but it becomes a lens through which

children (and adults) can redefine the material and symbolic boundaries that determine the relationship between us and the world, and open a real, concrete possibility for the decentralization of the human experience everywhere. After all, the desired final outcome of forest school is not to have children who are competent when in a forest, or feel connected only to a “natural” environment: we want them to be able to live in the world bringing everywhere a little bit of “selvatico” to define the relationship with every place considering that we don’t have all the control, everything doesn’t revolve about us and that’s ok.

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The Institución Libre de Enseñanza and the beginning of outdoors culture in Spain.

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The Institución Libre de Enseñanza (ILE) was founded in 1876 by Francisco Giner de los Ríos (1839–1915) and a group of professors expelled from the university for teaching doctrines contrary to the dogmas of the Catholic Church. Many of these professors were Darwinists, Krausists or positivists. They attempted to establish an alternative university where they could freely impart their knowledge, modelling it on the pioneering work of the Free University of Brussels in Belgium. Giner and his colleagues soon realised that, if they wanted to transform the university and Spanish society, they would have to start educating young people at an earlier age. They successively took in secondary and primary school students, eventually creating a section for infant school. The ILE ceased to offer university-level studies in 1881, and the school, founded in 1878, grew to become the innovative institution they wanted to propose as a model for the country's general educational reform, emulating the Model School of Brussels, albeit not in all its procedures.

The ILE was a cultural and educational movement without which it would be impossible to explain the history of Spain between 1876 and 1936. But the school that represented this movement was an extraordinary creation: the outdoors was the setting for their work, and hiking, both in the city and in nature, quickly became the focus of their activities, as Manuel B. Cossío (1857-1935) pointed out at the *Congrès International de l'Enseignement* in Brussels in 1880. From the beginning, hiking and outdoor life were their hallmarks. They promoted outdoor sports and popular games. One of Giner's best-known phrases is, «a day in the countryside is better than a day in the classroom». They were already practicing what we now call «Walking Pedagogy». After a few short excursions, between 1880 and 1882 they organized several expeditions, some lasting 25 days with 20 children along the Cantabrian coast and the Pyrenees, with treks that sometimes exceeded 40 km.

In 1883, they organized a long excursion through northern Spain and Portugal. Between July 14 and October 1, they travelled through many emblematic and little-known natural areas, including the Sierra del Guadarrama and Las Médulas. Perhaps the most extraordinary moment was when they entered the Picos de Europa (Cantabria), hiking from Potes to Covadonga (Villa, 2024). This route had not been previously travelled by hikers (there was no precedent for it), but Giner and Cossío made it with a group of boys between 12 and 13 years old, who slept outdoors and carried a bundle on their backs. It is perhaps the excursion where the educational power of the outdoors was most evident to Giner and his disciples: «Nature as an educating element, the hike, the perception, and enjoyment of the landscape, the big rocks and gorges, the scarcity of means and the need for light luggage, the uncertainty about where the night would go..., suddenly those elements appeared to the eyes of some teachers of the ILE as of an extraordinary value for the character formation of their students» (Otero, 2004, p. 9). This tour by Giner and his disciples represents a milestone in the dissemination of outdoor culture in Spain: in the early days of Spanish mountaineering and the value of traditional rural culture, as well as for the acceptance in the educational system of instruction outside the classroom, before the disaster of the Civil War.

The two core areas of school work that best responded to the pedagogical principles of the ILE were outdoor life and the discovery of art and landscape. They believed that all learning took place outside the classroom. The classroom served only to organize what was learned outside. Furthermore, Giner and his disciples understood that outdoor excursions contributed like no other means to forming the moral character of their students, freeing them from the «excess of intellectualism» produced by the classroom. In their program, which was revised over many years until it was defined in 1910, one can read a beautiful paragraph defending their benefits: «What is learned in them in concrete knowledge is little compared to the breadth of the spiritual horizon that is born from the varied contemplation of men and peoples; with the elevation and delicacy of feeling engendered in the rich spectacle of nature and art; [...] with the serenity of spirit, freedom of customs, abundance of resources, self-control, physical and moral vigour that spring from the effort made, the obstacle overcome, the setback suffered, the chance and unexpected adventure...».

The ILE excursions thus created an educational practice that had a very positive impact on teachers and also influenced social phenomena that became very powerful: the ILE children were the first to play soccer in Spain, thanks to Stewart Henbest Capper, who appeared in Madrid in 1882 with a regulation soccer ball. Giner's students also began to travel around the country and discovered a Spain that was ignored in the cities, a rural world that possessed a set of values that they considered an essence that should be preserved. This openness to the rural world gradually created a school of studies in Spanish popular culture and folklore that included, among others, Antonio Machado Álvarez; Demófilo, father of the poets Antonio and Manuel Machado; Ramón Menéndez Pidal; and the musicologists Jesús Bal y Gay and Eduardo Martínez Torner. Indeed, the discovery of the country through the adventures initiated by Giner's followers had a *regenerationist* undertone: studying traditional culture in order to achieve modernity. The desire was to find an «authentic and innocent» physical foundation on which to base proposals for reforming Spanish society.

The walking pedagogy practiced by the ILE soon influenced the scientific culture developed in the universities. The early Krausists succeeded in creating an environment of study and research that placed science and knowledge of the country before religious dogma, as a new focus of moral and intellectual authority (Casado, 2010). One of the first institutions in which the influence of the ILE was clearly felt was the *Sociedad para el Estudio del Guadarrama*. In the preamble to the basis of this society, approved on November 16, 1886, the need to learn and know things directly is defended, not by resorting to indirect references: «The excursions are a strong protest against this sense. They take us to study nature in the midst of it; industry within factories; art before monuments; geography travelling the earth; history in archives and museums, and even in the places where events took place; sociology, speaking and living with people; and they lead us, in short, to the knowledge of our entire country, really and truly attending its entire life in the very theatre in which it unfolds». Of the 25 founders, 18 were closely associated with the ILE.

The school camps movement was introduced by Manuel B. Cossío in 1887, taking a group of 18 children to San Vicente de la Barquera (Cantabria) for 33 days. The following year, he presented the results at the *Internationaler Kongress für Ferienkolonien* in Zurich. He based his speech on some ideas he had gleaned from reports on French colonies. At the end of his speech, Edmond Cottinet, the driving force behind the school camps in France, stood up and exclaimed that he was returning his instructions with interest: «Your report is the best of the entire congress», he told him. The school colony movement spread rapidly throughout Spain, and still, in September 1937, in the

midst of the Civil War, there were 564 colonies in Republican Spain that housed 45,248 boys and girls.

Birger Sörensen was a Norwegian who arrived in Madrid around 1900 to take over the family business, the Sörensen Jakhelin & CIA Lumber Company. Sörensen enjoyed skiing in the Sierra del Guadarrama with skis he had built himself in his company's workshops: they were the first skis manufactured in Spain. On one of his walks, Sörensen met a group of enthusiastic young students from the ILE, led by Cossío. Among them was Manuel González de Amezúa, who became so interested that he promoted skiing by creating its first shelter in Spain, the Twenty Club (in the original English because it had 20 members), near Ventorrillo, a spot in the mountains that the ILE used for excursions. In 1908, he created the Spanish Alpine Club. However, it wasn't until 1913, with the creation of the Peñalara Mountaineering Society by Constancio Bernaldo de Quirós, another follower of Giner, that mountaineering took hold in Madrid with a strength that continues to this day (Ortega, 2014).

The idea of forest schools had been adopted by Domingo Barnés at the Franco-British Exhibition in London in 1908. He wanted to organize the first forest school in Madrid, but administrative problems arose, and the Barcelona city council preempted the idea. The school opened the Montjuïc Forest School on May 8, 1914, under the direction of Rosa Sensat, who had been in contact with Giner during the four years she lived in Madrid. They both believed that forest schools should be open to all children, not just sick and pre-tubercular children. Sensat had undertaken a study trip to Belgium, Switzerland, and Germany between October 1912 and May 1913, where he visited some of the most innovative educational centres. The Montjuïc school welcomed working-class children, but most interestingly, it was the first official open-air school in Spain that followed the ideals of the New School movement. The ILE had an ambitious plan to reform Spanish education and wanted to test it in a new public school.

The Madrid Institute-School, founded in 1918, seamlessly combined primary and secondary education and put its ideas into practice, characterizing its teaching with continuous outdoor activities. The report for the 1924-1925 academic year stated that they had taken more than 500 excursions with the students. According to its own Regulations, children's curiosity had to be first awakened before they could directly study nature and things. «Reality must be taught in reality, rather than in books», Cossío said. The model began to spread during the Second Republic to Barcelona, Seville, Valencia, and Malaga. The «institucionistas» wanted this model to spread throughout Spain, but the Civil War put an end to this luminous project.

Already during the Second Republic, in 1931, the *Patronato de Misiones Pedagógicas* (Trust of Educational Missions) was founded. This official organization had the goal of bringing culture to the most remote and abandoned villages throughout Spain. This goal led a significant group of intellectuals, along with primary school teachers, to travel the roads, bringing libraries, cinema, music, and theatre supplies, as well as extraordinary copies of paintings from the Prado Museum. They were going to bring culture to an illiterate population, but they realized that not only did «an ancient, residual culture exist in the villages, but that this culture also contained a foundation that had to be drawn upon to renew the habits and life of the country» (Otero, 2012, p. 609). The end result was the discovery of a country unknown in the big cities, where values existed that needed to be appreciated and disseminated among the urban population, who lived completely alien to rural Spain: many peasants had never seen a car and were unaware of the existence of electric light.

Travels through Spain's villages gave rise to an entire generation of intellectuals, artists, students, university professors, education inspectors, and teachers, who felt influenced by this rural culture in their perception of life, their artistic and literary values, their political views, and their social commitment.

Francisco Giner attached great importance to the learning that came from experiencing the landscape, and was keenly connected to the manifestations of popular and rural culture. He affirmed that the landscape was not something that merely allows us to enjoy our senses but was the place where we remain, learn, and live: it allows us to reach «the ideal moment of free representations, which extends our enjoyment beyond the horizon of sense». He called for nature to return to the centre of cities and for schools to be in contact with natural spaces because that was where schoolchildren truly learned, not in classrooms. Furthermore, he stated that «The ideal of every school is to get as close to the outdoors as possible».

In fact, the ILE participated in a transnational movement that considered nature as the primary medium for the education of schoolchildren. Although this educational movement was still poorly defined at the end of the 19th century, it already had common elements in several countries. Its Spanish roots lie in Krausism, but there are also intellectual links with social evolutionism, North American transcendentalism, and the ideas of John Ruskin, Patrick Geddes, Henriette Breymann, Paul Robin, or Élisée Reclus.

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The dynamics of training educators in nature: new contributions from place-based pedagogy

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The Master's Degree in Management of Educational Activities in Nature is offered at the University of Santiago de Compostela, Lugo Campus, since the 2011-2012 academic year. Its origin lies in the discussions held by a group of professors in 2007, at the current Faculty of Teacher Training. The goal was to organize a postgraduate degree program that would enable educators to be trained for the new challenges of the 21st century, placing nature at the center of learning. Our goal was to provide alternatives to a sedentary lifestyle and a learning process increasingly centered on screens and the digital field. Apart from this, and to support the project, we had several precedents within our own Faculty to justify this, and a very favourable, wooded environment nearby, as the city itself is part of one of the largest biosphere reserves on the Iberian Peninsula.

We began studying how to implement an official postgraduate degree with these characteristics and discovered that, while similar degrees were common in the United States and Australia, there were fewer models available in Europe. Furthermore, we were proposing a degree that didn't exist at any other Spanish university. Examining foreign degrees that our project most closely resembled two of them were identified as role models with. We understood that the new degree had to meet a growing demand in today's society, which requires expert professionalism and a solid professionalisms with a solid intellectual background from staff to address the increasingly widespread educational activities carried out in natural environments.

The idea we agreed was to establish an official master's degree to train senior educational managers in outdoor natural environments, using the university's own resources and an environment that made such training possible for our students. As an experimental course with few previous resources to draw upon, a program was designed to include that would encompass a diverse set of fields of study. The goal was to produce versatile graduates within the context of nature education: both for formal education and for sports activities. To name a few; permanent facilities in protected environments, hiking and camping, serving different age groups, and preparing them to establish their own businesses inspiring and imbuing them with a spirit of initiative. We wanted the students who took it to possess not only to get the knowledge of a naturalist and the common resources of an educator; we were interested in awakening in them for a love towards of nature, an intimate respect for the landscape, and the ability to use their senses in the silence of the mountains. To show them that the rural world and nature are also an endless inexhaustible source of values, allowing us to enjoy life from a different perspective than big cities do, one that doesn't seem possible in big cities.

After some debate between 2007 and 2009, the degree program was finalized, showing with a curriculum that attempted to merge various disciplinary cultures, already existing in the nearby academic environment. Well, as we soon discovered, not only biologists and educators showed interest in its development, but we quickly found intriguing proposals from literature, history, philosophy, economics, music, and the visual arts were raised. Articulating including all these cultures in the curriculum was the commission's task during the 2009-2010 academic year, once the program received its accreditation on August 31, 2009. For its accreditation, the program had to overcome the reluctance of evaluation from agencies, which we considered one of its greatest

strengths: it embraces encompasses 17 areas of knowledge, offering a holistic approach for education, illuminating lighting many aspects of the same reality from different spheres of knowledge. It's not just about students acquiring academic training related to pedagogy, natural sciences, literature, history, or law, but rather getting practical know-how and possessing the skills to perceive the full educational power that nature offers and act accordingly. We currently have a solidly established track record, and we already have a significant number of graduates.

How should we proceed with the training methodology? From the outset, we considered that it had to be mainly eminently practical. That is, not bookish or technical: students should had to learn from practice understand reality before being provided with theoretical references. It was impossible to train educators in nature without having a clear experience of coexistence and survival in a natural environment. This led us to consider that at least 50% of the teaching would be carried out outdoors; and secondly, that a methodology that promotes experiential learning had to be developed through flipped classroom. The David Kolb's Experiential Learning Cycle was very useful for us.

We were able to build an innovative and more grounded framework when we contacted the EOE at the 14th European Conference in 2014 (Laugar, Sælingsdal, Iceland). Heather Prince visited us in Lugo in 2015, and we established a good relationship with the University of Cumbria that still continues nowadays to this day. We understand that nature is a full field for an environment for all learning. Not only from an academic or health perspective, but also in aspects involving our values and personality, our ability to coexist and understand the world we live in, our ethical principles, and the purpose of life. In other words, achieving a deep education. Furthermore, we didn't want to create a program only based solely on environmental education or outdoor sports. We also considered the importance of leadership: that our students have a broad perspective and the ability to manage groups of students in natural environments. We wanted to develop educators who were aware of the possibilities offered by being in contact by contact with nature and rural life. The pedagogy of the place opened up areas of work that facilitated innovation and creative activities.

Academic year	Newly Rolled students	Students who defended the TFM	Graduated students
2011-2012	29	23	23
2012-2013	28	19	19
2013-2014	15	12	12
2014-2015	-	3	3
2015-2016	28	26	26
2016-2017	27	18	16
2017-2018	24	28	27
2018-2019	15	11	10
2019-2020	25	26	26
2020-2021	25	29	29
2021-2022	24	13	12
2022-2023	25	30	30
2023-2024	25	15	15
2024-2025	25	14	14
TOTAL	315	267*	262
*Until June 2025			

In recent years, we have shifted our approach towards the pedagogy of place. We emphasize rural habitability as a space that educates and, at the same time, that has the capacity to present itself as a sustainable model of living. Discovering rural life can offer excellent training options in the face of overflowing cities that constantly grow and destroy their nearby rural environments. The need to develop a place-sensitive pedagogy involves not only the development of practical outdoor activities but also an appreciation and respect for the explored environment (French, G. et al., 2023). Deeply connecting deeply with the place and not passing through it as if it were a «takeaway» is one of the challenges that most concern us the most today. There are several examples we would like to highlight in these training activities.

Some reference activities carried out in relation to place-based pedagogy

Activity	Description	Discovered values
Visiting a village that was inhabited until recently. A mountain place where electric light never reached.	A village abandoned 50 years ago that still preserves traces of its habitation. Conversation with the last living person born there.	The stories of the elderly about the history of the place. The seething presence of the ghosts of a recent past.
A hiking trail leads to iron smelting furnaces and an old blacksmith's shop. Discovery of the landscape, of its abandoned habitability. Theatrical performance on site.	A natural area with abandoned engineering elements, a history of mining activity dating back to ancient times, forges and blacksmiths from different historical periods along a 21-km.	The transformation of the landscape with human presence and its subsequent abandonment. The ability to travel back in time and imagine other forms of life in the place.
Visit a pre-Roman archaeological site (over 2000 years old) on the crest of a mountain. Theatrical performance on site	A pre-Roman fort under excavation that contains a sauna. It is an exceptional discovery. It is a very isolated place.	The ability to travel back in time to a remote place and imagine an extreme lifestyle and sauna use. Imagining an alternative world.
The Massó factory and the transformation of an urban environment, Study and understanding of industrial ruins.	It was the most important seafood cannery in Europe and perhaps the largest in the world, occupying 22 hectares.	Understanding the transformation of a maritime territory, the rise, and fall of its economic activity. The Discussion of the Lost World.
The phenomenon of «colonization» during Franco's regime. Conversations and coexistence with the local inhabitants. Study of the Transformation of a Landscape. Theatrical performance on site.	Families who were compelled to relocate, sometimes by force, from their homes and settle in new locations with strange architectural were given land in different regions of Spain during the Franco regime.	Relationship with the people who live in these rural environments. Perception of a forced social phenomenon and discovery of the life experiences of these families. It is a distinctive architectural landscape.
The Belesar reservoir and the the history of ecological conflicts. A forgotten peasant rebellion during Franco's regime. Theatrical	A huge dam that has flooded towns and villages and their farmlands, with strong opposition from the	Importance of bringing to the present events that are still vividly remembered and are part of the history of the place.

performance on site.	neighborhood	Critical Consciousness.	Historical
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We have carried out other experiences, such as actions to recover the soil land affected by forest fires through the *FacingFire* program, engaging with various stakeholders and planting trees with schoolchildren. We have also developed a line of research related to art, experimenting with the loss of natural diversity, trades, legends, traditions, and languages, which hold enormous wealth. The term «Creative Pedagogy of Place» has been named to coined specifically to develop workshops with children that focus on local imaginaries, with an emphasis on the rural world (Freire-Pérez et al. 2024).

In the table, we highlight the specifically developed actions made developed specifically to recover the historical memory of depopulated places or places experiencing significant population decline. In some cases, we returned to the past through theatrical performances; in others, we simply observed the objects and architectural remains of the ruins. Through this emotion, we invited the students to travel back in time and perceive the «seething presence» of the ghosts, the remains of an occupation of a territory that was once prosperous and filled with economic and social activity.

The visit to these places also developed an important narrative. Some of these activities took place in a mountainous region where, after the Spanish Civil War, there was a significant “guerrilla” movement of anti-fascist fighters. The students prepared a performance in 2024 in which teachers and students took on roles in the play. The goal was to learn about the lives those people led, what those who persecuted them were like, their conflicts, and the people who clandestinely helped them. All of this took place during a 21-km walk. In February 2025, the large Belesar reservoir, built in 1963, was visited. The resilience of the inhabitants, who saw their valuable vineyards lost and their homes submerged, was represented. In the case of the *colonos* or settlers, the moment of land distribution to families who had arrived there from distant places was also performed reenacted. It was also very important to meet the elderly farmers, who remembered that time when their lives were conditioned by the State and they could not freely work their land.

In nature, which we sometimes believe to be almost pristine, there are many places that were once inhabited. Recognizing their ruins and remains awakens historical consciousness. We stimulate the ability to place ourselves in a past that must be imagined in situ by visiting the place. We recognize the archaeological objects that are still visible, and in a way, we feel the emotion of visiting a landscape that has been lost in the past. It stimulates our daydreams, reconstructing a world we have never known. It is an exercise that leads students to reflections that stimulate awaken their capacity to comprehend the world, by to asking fundamental questions that help them to understand the society of that time, its complex relationships and influences, themselves as social beings and as individuals. Furthermore, it also awakens their sense of harmony, resolves their ethical convictions, and ultimately helps those live better lives.

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Fostering Inclusive Science Communication through Outdoor Experiential Learning

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Sergio Passanante is a doctoral researcher in Reggio Childhood Studies at the University of Modena and Reggio Emilia. His research explores inclusive science communication and outdoor experiential learning, with a focus on underrepresented children. Through the Lisbon Botanic Garden Sensory Garden project, he investigates the pedagogical value of visual metaphors in enhancing environmental literacy, biodiversity awareness, and eco-pedagogical approaches to sustainability.

Extended Abstract

This extended abstract builds upon the presentation delivered at the EOE Conference in Rimini, titled 'Fostering Inclusive Science Communication through Outdoor Experiential Learning'. The study is part of an ongoing doctoral research project that aims to explore innovative approaches to accessible science communication for children, particularly those from underrepresented or socially excluded backgrounds. Centred on the Lisbon Botanic Garden Sensory Garden project, the research draws upon eco-pedagogical and Reggio Emilia-inspired frameworks to investigate how outdoor experiential learning can strengthen inclusive science communication, foster ecological awareness, and promote engagement with environmental issues such as biodiversity and climate change.

Introduction

Inclusive science communication is increasingly recognised as essential for addressing inequities in education and ensuring that scientific knowledge is accessible, engaging, and meaningful to diverse audiences. Traditional science education models often exclude or marginalise children from underrepresented communities by privileging abstract, text-heavy, or language-centred approaches. This research argues for the need to reframe science communication through experiential, multimodal, and inclusive strategies that foster curiosity, critical thinking, and scientific literacy.

Theoretical Framework

The eco-pedagogical approach at the heart of this research integrates environmental education, inclusive pedagogy, and outdoor experiential learning. Inspired by the Reggio Emilia Approach (REA), the study emphasises children's potential for creativity, imagination, and collaboration when supported by attentive listening and participatory practices. Outdoor Experiential Learning (OEL) is considered a crucial mediator in bridging formal and informal education spaces (Zuccoli, 2014; Schenetti & Petrucci, 2023). By incorporating visual metaphors (Ervas et al., 2017), the project seeks to overcome linguistic barriers, making scientific concepts more tangible and accessible to children from different cultural and social contexts.

Case Study: The Lisbon Botanic Garden Sensory Garden

The Sensory Garden at the Lisbon Botanic Garden serves as the focal site for this research. Designed as an accessible and inclusive educational space, the garden promotes engagement with ecological concepts such as biodiversity, ecosystem interdependence, and climate change. Renovation efforts have prioritised inclusivity, including wheelchair access, tactile maps, seating areas, and interactive installations. Activities such as the Barefoot Walking Path and Tactile Boxes

stimulate multiple senses, encouraging reflection and connection with nature across age groups and abilities.

Pedagogical Strategies and Visual Metaphors

A central innovation of this project lies in the use of visual metaphors to communicate complex scientific concepts. Visual metaphors, including pictorial similes, hybrid metaphors, and contextual metaphors, allow learners to bridge the familiar with the unfamiliar. For example, the metaphorical pairing of a cigarette butt with a fish highlights the impact of human pollution on aquatic ecosystems. These strategies simplify abstract ideas while fostering critical thinking, ecological awareness, and emotional engagement. They act as cognitive tools for conceptual shifts, encouraging learners to see themselves as active participants in environmental care.

Methodology

The study employs a mixed-methods design, combining quantitative and qualitative approaches. In the experimental design, two groups of second-grade students participate in outdoor educational activities at the Sensory Garden. One group engages with visual metaphors (experimental group), while the control group is exposed to literal counterparts. The five activities address key natural resources—air, water, energy, soil, and biodiversity—through both visual and hands-on experiences. Quantitative data are collected through questionnaires assessing comprehension and retention, while qualitative insights are drawn from observations, informal conversations, and audio-recorded reflections. A follow-up study after four months will assess long-term retention of concepts, allowing for a robust analysis of the impact of visual metaphors in environmental education.

Preliminary Findings and Expectations

Although the project is ongoing, preliminary observations suggest that outdoor experiential learning enhances children's ecological awareness and emotional connection with nature. Initial engagement indicates that children exposed to visual metaphors demonstrate deeper reflection, more creative associations, and stronger memorisation of sustainability concepts. The activities also reveal the inclusive potential of sensory-based approaches, which transcend language and cultural barriers, making scientific ideas more accessible to diverse learners.

Discussion

This research contributes to ongoing debates in inclusive education and science communication by demonstrating how outdoor experiential learning environments can act as catalysts for social inclusion. The Sensory Garden model challenges traditional educational hierarchies by integrating informal learning strategies into structured pedagogical frameworks. Furthermore, by focusing on children from underrepresented backgrounds, the project emphasises the role of accessibility in shaping equitable educational models. The findings also resonate with wider eco-pedagogical goals, suggesting that inclusive science communication not only enhances learning outcomes but also nurtures a sense of collective responsibility for environmental sustainability.

Conclusion

The Lisbon Botanic Garden Sensory Garden project offers an innovative and inclusive framework for science communication and environmental education. By integrating visual metaphors, sensory activities, and eco-pedagogical approaches, the research addresses pressing challenges in equity, accessibility, and ecological literacy. As the study progresses, its findings will provide valuable

insights for educators, policymakers, and practitioners seeking to create socially just and environmentally responsible learning environments. Ultimately, this research underscores the transformative potential of outdoor experiential learning in fostering inclusive, accessible, and impactful science communication.

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Teach on the beach within reach: The challenges of, and opportunities for creating place-responsive activities for primary aged children in an area of urban deprivation in the UK

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Many coastal towns comprise some of the most disadvantaged communities in the UK. These areas, often with an industrial legacy have been marginalised through government underfunding over many years resulting in social, health and economic inequalities in, and challenges for their populations. Children and young people live near the sea but many rarely or never visit it as there are challenges and barriers to accessing coastal areas and exploring their affordances.

However, there are recent funded initiatives to facilitate place-based, experiential outdoor learning to provide opportunities to inspire children and young people about their environment and local community towards increased place attachment, place identity (Lewicka, 2011; Scannell & Gifford, 2013) and place-responsiveness (Mannion & Lynch, 2016). It is hoped that these experiences will provide communities with an increased sense of belonging to their local places and spaces, enhancing the way in which they value and care for these coastal environments to become active citizens for a sustainable future.

Context

Multiple indices of deprivation show that Barrow-in-Furness, a town in Cumbria, NW England is classified as the most deprived area in the county and falls within the 10% most deprived nationally in respect of employment, health and disability and living environment. Children and young people in the town value their local environment with ‘nature, the sea, walks, family and friends, community and friends’ being stated as the best things about living in the area (CCF, 2021). However, recent reports suggest that although Barrow Borough was ranked the third highest in England for the number and quality of natural landscapes and assets, it is 282nd for how communities use their landscape (RSA, 2024). Furthermore, research commissioned by Natural England (a government agency) found that although young people (11-18 years) in the area recognised the psychological, physical and social wellbeing benefits of being by the sea, the barriers of going there were numerous and interconnected and particularly hard for young people living with multiple pressures and disadvantages (Pound et al., 2019). These included social barriers including no sense of belonging, negative personal attitudes and fears, not knowing where to go, getting there and being able to afford to go, or knowing what to do once they were there and natural risks such as tides, quick sands and rockfalls.

If you live in town and don't see the beach regularly, you don't feel like you belong

I can't get to the beach near our town and if I did go, what would I do there?

To address these challenges, central government funding and planning permission has been granted for a Hub with an environmental education centre close to the beach nearby at Earnse Bay ‘to connect people to open spaces, nature and education’. The Hub is c. 4 km from the centre of Barrow-in-Furness and closer to other communities on Walney Island (Figure 1) with a regular bus service. It will provide community facilities surrounded by open spaces, and classrooms and workshops supported by an educator (Westmorland and Furness Council, 2025). This paper outlines a project developing ‘Learning Naturally’ activities based at the Hub for 4–11-year-olds to engage them in place-responsive outdoor learning and to explore the human and more-than-human affordances of that place (Lynch & Mannion, 2021; Stewart, 2020).

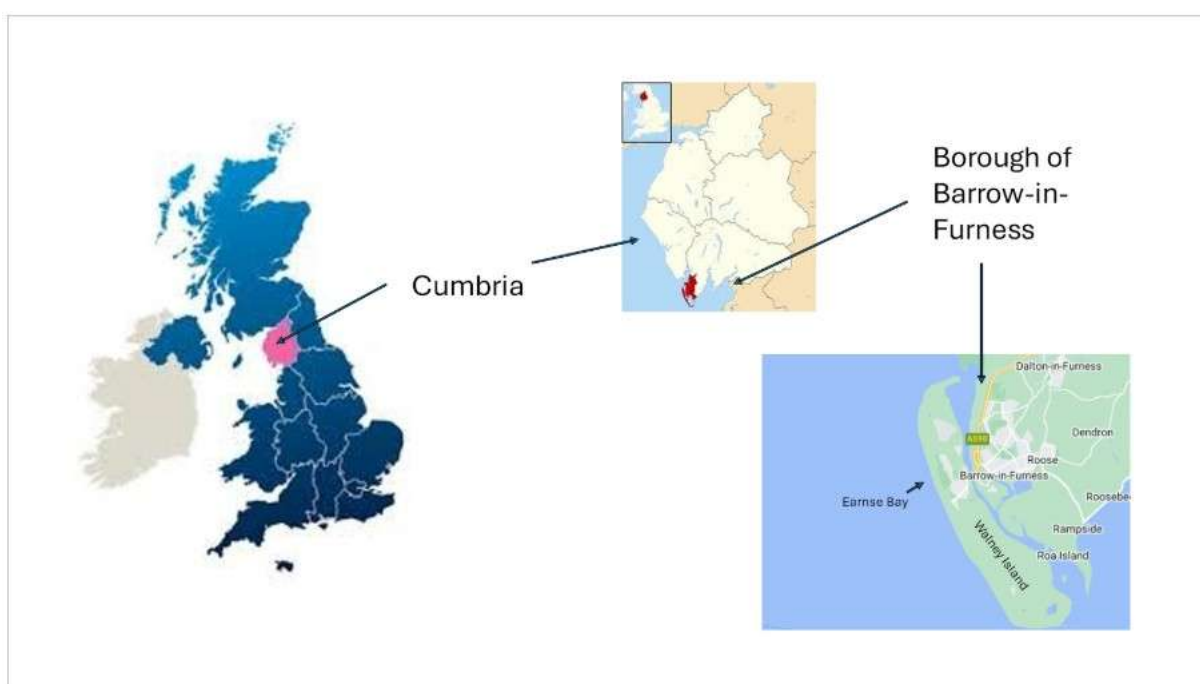


Figure 1: Location of Earnse Bay and Barrow-in-Furness, Cumbria, UK

‘Learning Naturally’ activity plan development

Natural England’s (NE) advocacy for ‘time in nature’ responds to strong evidence of its benefits for children’s mental and physical health and wellbeing, development and learning (Natural England, 2024). As the funder for the ‘Learning Naturally’ project, they were the major stakeholder, and the project team liaised regularly with them. The specification initially was on science, related to NE’s purpose to ‘help conserve, enhance and manage the natural environment for the benefit of present and future generations, thereby contributing to sustainable development’. However, it soon became clear that activities on the beach could span all curriculum areas, and that outdoor play was an important component in planning. NE were also keen that teachers could feel confident in time to lead their own activities, and some could be self-directed for non-formal education groups and informal learning.

Curriculum developers created learning opportunities following the pedagogic principles of child-centred outdoor and experiential learning that stimulates curiosity and critical questioning. The activities were intended to promote excitement and joy in learning, making time and space for play. They responded to other stakeholders including children, local teachers, teaching assistants, parents and headteachers (including a deputy headteacher of a SEND school who developed an adaptive curriculum for their students), local educators such as ArtGene (an artist led charity engaging communities in the re-visioning of the social, natural and built environment of Barrow-in-Furness), local residents and visitors to the beach.

A thematic framework was developed comprising four themes: ‘Earnse Bay’, ‘Planet Earth’, ‘Wind and Tide’, ‘Communities and Awesome Species’; and ‘The People of Walney Island’. The framework spanned seven year groups, with activity plans comprising two and a half hour sessions, which could be used progressively or for stand-alone learning. In-school learning before and after visits was also suggested, as well as adaptations for differing tidal and weather conditions, with considerations for access and inclusion for every child. Cross-cutting themes of ‘Wellbeing’, ‘Sustainability and Taking Action’, ‘Special Earnse’ and ‘Safety on the Shore’ were embedded in all activity plans. The emphasis was on highlighting the special and often unique affordances of Earnse Bay as well as at other coastal environments to emphasise place-responsiveness. The activities also provided learners with opportunities to situate their place in the wider global context, through exploration of the human and more-than-human affordances (Stewart, 2021) for example, collecting objects on the strandline, ocean literacy and World War II historical military assets.

‘Learning Naturally’ in action

A key part of the project was delivering some of the planned activities to children from local schools to enable curriculum developers to ascertain their efficacy in meeting the intended objectives. This involved observing the actions and responses of the children, listening to their voices and gaining feedback from teachers, teaching assistants and parents who experienced the activities.

44 Reception children (ages 4-5) joined us on a wet, windy day in July 2024 at Earnse Bay. One group followed the ‘What’s on the tideline?’ and the other, the ‘Who lives here?’ activity plans. The children eagerly participated in a game on the sand to teach about different tidal levels (one of the challenges for the developers had been to develop activities for teaching very young children about the tidal cycle) and exploring the strandline certainly stimulated curiosity, discovery and critical questioning, which were extended by the educators. Storytelling was embedded in the sessions following a recommendation from a local headteacher. ‘Rockpooling’ also realised our objectives with each child having a bucket (provided free by a local supermarket chain) to search for ‘awesome creatures’, illustrated by the educators using an aquarium prior to the session, which included an eel to the delight of the children.

Play is an important part of the Early Years Foundation Stage framework in England (Department for Education, 2024) and time and space for structured play on the sand was included in the sessions. Children were asked to make sandcastles and decorate them with ‘found’ materials and objects. One girl had never made a sandcastle successfully and was being alienated by her peer group. Working with an educator, she soon learned the technique and on building a group of

sandcastles, became an accepted and integral part of the group. Another child had only been in school for three days and spoke no English, yet language was no barrier to these activities, and he produced a most expansive and decorated sand sculpture.

The group of 10–11-year-olds (year 6) visited the sand dunes, a walk of some twenty minutes along the coast. This gave opportunities for an illustration of the state of the tide in relation to the tidal cycle (including mathematics for working out how accurate the tidal prediction was) and exploration of other coastal features and species including ragwort, thyme, marram grass and sea holly. Transects were walked on the dunes looking at adaptations of plants. Nature journaling (Bell, 1997; Laws & Lygren, 2020) proved to be successful and a spontaneous debate about human exploration and trampling of sand dunes versus dune conservation was a valuable outcome of a ‘teachable moment’ and a nexus of adventure and learning.

The headteacher for the group of 8–9-year-olds (year 4) had requested the topic of ‘life cycles’, a dynamic concept which proved challenging to teach at one point in time. The sand was used as a canvas and latterly a gallery for the children to draw and explain their knowledge of a named life cycle. Important life cycle stages were highlighted, and the children then explored the sand, sea edge and rockpools to find creatures and ask questions about their life cycles. Sieving sand for lugworms after an explanation of how they excrete sand on the surface was an activity that generated much excitement and interest for the children. The feedback given by the children when back in school is shown in figure 2.

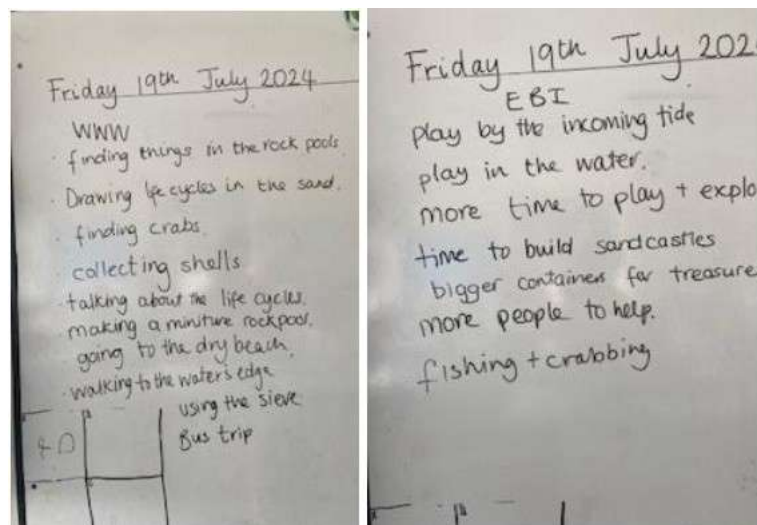


Figure 2: Children’s evaluation, Year 4 (8-9 years) [WWW: What worked well; EBI: Even better if]

The activities were well received although the importance of play (or perceived lack of it) for this age group too, needs to be appreciated by educators as well as the whole experience of an out-of-school trip, which includes a bus journey. The piloting of these activities reinforced the advantages of creating a conducive teaching environment in inclement weather and the need for the availability of waterproof clothing at the Hub.

Conclusion

The project reflects the manifestation of place-based learning and place-responsive education in practice, discovering nature close to where children and young people live in an urban area and providing adventurous, creative and inspirational learning activities on the beach. The Hub is expected to be completed by 2026 and although a curriculum can exist without a building, its facilities will provide enhanced experiences for children and young people to learn and experience *their* place.

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Enabling Nature Experiences for Youth in Urban Environments: Lessons from the Finnish Context

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Abstract

This extended abstract reflects on the presentation delivered at the EOE 25 Conference, titled *Enabling Nature Experiences for Youth in an Urban Setting*. The presentation explored the theoretical underpinnings, practical methodologies, and outcomes of youth-oriented outdoor and adventure education programs conducted by Folkhälsans Förbund in Finland. Drawing from the Finnish context—rich in natural resources but marked by generational disparities in nature engagement—we outline two primary intervention strategies: restorative workshops and activating adventure programs. These initiatives aim to foster physical, mental, and social well-being among youth, particularly those at risk of social exclusion. The abstract concludes by highlighting key findings, methodological approaches, and future directions, advocating for inclusive, locally anchored, and evidence-informed nature experiences for urban youth.

Introduction

Urbanization and technological advances have reshaped the relationship between youth and natural environments. Although Finland is endowed with vast natural resources—forests, lakes, and a strong cultural connection to nature (Periäinen, 2006)—many young people in urban settings experience nature less frequently and derive fewer health benefits compared to older populations (Haverinen et al., 2021). This abstract presents findings from youth health promotion initiatives at Folkhälsans Förbund that aim to close this gap.

Context

Youth health promotion at Folkhälsans Förbund centres on fostering inclusion, participation, recovery, physical activity, and sense of community. The organization's belief that "health should not be an achievement, but unconditional" guides its mission to make nature accessible and beneficial for all youth (Folkhälsan, 2024). The initiatives described target youth aged 13–29, especially those facing social, economic, or mental health challenges.

Despite Finland's natural abundance and legal frameworks like *Everyman's Right*, young urban residents report lower emotional and psychological benefits from nature. In 2025, only 36% of 15-year-olds reported using "true nature" weekly for physical activity (41% in 2022) (Hämälä, 2025). This disconnect prompted the development of inclusive, local, and seasonally adaptive nature programs.

Methodology

The initiatives fall under two main frameworks:

1. *Chilla Ute* – Restorative Nature Experiences

Workshops in urban green spaces incorporate:

- Guided relaxation techniques (e.g., hammock breathing)
- Sensory awareness (sound, smell, touch)
- Light physical activity and social dialogue
- Shared outdoor meals

Sessions are co-designed with youth and emphasize safety, accessibility, and emotional well-being. The theoretical framework draws from salutogenesis (Antonovsky, 1979), environmental psychology, and experiential learning.

2. *Folkhälsan Off-Trail* – Adventure-Based Empowerment

Adventure programs offer physically and psychologically challenging activities such as:

- Kayaking, fishing, hiking and climbing
- Team-based outdoor tasks
- Reflective exercises promoting self-efficacy and resilience

Targeting youth without summer jobs or social networks, this program is delivered in collaboration with student health services and youth clinics. It emphasizes empowerment, autonomy, and personal growth through nature.

Results and Reflections

Informal and formal evaluations suggest benefits. Participants report increased motivation, connection with peers, and interest in revisiting nature independently. One participant stated: “I got a good basic introduction and felt inspired to go paddling again!”

Key lessons include:

- The necessity of local partnerships for outreach and logistics
- The importance of youth participation in program design
- The power of small, frequent engagements over rare, intensive ones
- Social media’s role in youth recruitment, despite its resource demands

Discussion

These programs demonstrate that urban nature, when framed intentionally, can serve as a potent resource for health promotion. Notably, nature experiences do not need to be remote or extensive to be effective; instead, they should be regular, immersive, and socially anchored.

Barriers such as weather, transport, and mistrust among marginalized youth remain. Addressing these requires sustained investment, intersectoral cooperation, and adaptive programming.

Conclusion

The work at Folkhälsan represents a scalable and adaptable model for enabling transformative nature experiences among urban youth. Grounded in health promotion, environmental education, and social inclusion, the programs described demonstrate that nature—when made accessible and engaging—can play a profound role in youth development. In an era of rising mental health concerns, social fragmentation, and ecological disconnection, initiatives like Chilla ute and Off-Trail offer a hopeful path forward.

Future work will explore longitudinal outcomes, digital tool integration, and climate resilience in youth nature education. As Finnish society continues to urbanize, ensuring that nature remains part of the lives of all young people—regardless of background—will require ongoing commitment, creativity, and collaboration.

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Teaching with the place: Using phenomenological vignettes for collective auto-ethnography in a farm kindergarten.

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Introduction

Acknowledge and enhance the role of nature and places within the practice of teaching and learning is a basic assumption of any outdoor education approach. More specifically, place-based education (PBE) constitutes a vast set of practices and theories that draw on the concept of place as a generative element for education and learning (Gruenewald, 2003; Sobel, 2004). PBE invites to connect learning to any different environments, urban, rural or wild, both in natural and in cultural landscape. Exploring the concept of place opens up to a multiplicity of concrete contexts and of learning dimensions: the physical and material ones, as well as the aesthetic, eco-systemic, narrative, and cultural.

Furthermore, experiencing natural places within a school context offers an opportunity to question ecological relationships and foster eco-literacy pathways. As Paulsen states, “the crucial point is that teachers and students decenter themselves and let the other living beings thereby come out of hiding with their knowledge, creativity, passions and interests and and perhaps or perhaps not, then enable contact with humans, give them a lesson or two, inspire them to wonder about, take care of, or be more attentive to life” (2023, p. 103).

Teaching with the place de-centers “the taken-for-granted human voice” and re-centers “more-than-human voices” (Jikling et al., 2018, p. 81) and “there can be tremendous benefits to questioning the idea that a single human teacher should be at the center of teaching and learning, and to expand consideration of what and who an educator is and might be”(Jikling et al., 2018, p.80). A place can be simply viewed and experienced as a resource for teaching, like a blackboard or a digital device. Another possibility is to connect with places as an educational partners. In this last meaning perspective, place and nature can be described and experienced as a co-teachers (Blenkinsop & Beeman, 2010, Ford & Blenkinsop, 2018) and as third educators (Montessori, 2023).

Research aim and questions

Many activities and teaching programs embrace a place-based or place-responsive perspective, and also a considerable amount of research has been done in this area as well. Nevertheless, while the relationship between children and natural places is often analyzed in terms of learning, wellbeing and in other dimensions, the teacher's perspective still needs to be explored in depth. The experience of teaching-with-the-place is less analyzed, and there are only few research considering that in the context of early childhood education (McClintic & Petty, 2015; Schenetti & Guerra, 2018).

It is also important to note that teachers play a strategic role as change agents in any educational field and even more in outdoor education field. They are often the key factors for the implementation of place-based/outdoor education in schools, and in this process they can feel isolated and unsupported (Barfod, 2018). Teachers and other educators also play an important role

as facilitators of social and cultural change (Biesta, 2021), especially in relation to ecological and sustainability issues (Fettes & Blenkinsop, 2023): for these reasons it is also important to carefully explore their experience in place-based educational contexts.

This qualitative inquiry intends to explore the lived experience of a group of five educators who work within a farm-based kindergarten in north-eastern Italy. Their relationship with the place is analyzed by the following research questions:

- How is the relationship between educators and place when the latter is recognized as a co-teacher in a farm-based early childhood education context?
- What meanings, challenges and positive opportunities are experienced through teaching with the place?

Context and methodology

Cresco Fuori is a farm-based kindergarten (agri-asilo), founded in 2019, and located in the north east of Italy. It welcomes around twenty five children between the ages of one and six; it is a private project developed by a community of educators and families, with the support of a no-profit association and a farm.

Its peculiar feature is the connection between pedagogy and farm life, within a place-based framework. A farm is a living, multi-generational, multi-functional place inhabited by an infinite number of creatures, including non-humans, both plants and animals; where cultivated environments coexist with wild ones, where scientific and technological knowledge coexists with traditional and narrative knowledge.

Children participate in the farm daily life, through an active involvement in many different practices, mediated by the educators and framed coherently with their learning needs.

Cresco Fuori program combines open ended play, modeled play and teacher-child interaction in and with place, within a framework of purposefully framed play approach (Cutter-Mackenzie & Edwards, 2013). Exploratory and free play in nature is a unique learning experience, in which the educator engages in exploration and play with the children and the environment. Equally important are activities of direct teaching, in which children are guided through more specific experiences or languages, connected to the place: experimentation with artistic languages, hands-on workshops, related to gardening or cooking. Caring for the common spaces, both indoor and outdoor, is a shared commitment between adults and children, and a further learning opportunity as Montessori clearly highlighted (Montessori, 2023). Every learning experiences are accompanied with conversations, dialogues, reflective practices, and supported through the reading of stories and narratives.

This research involved all members of the Cresco Fuori educational team, including four educators and one student intern. The inquiry pursued two objectives: a research one, linked to the research questions presented above, and a learning one. This learning objective is about fostering the professional development of the participants teachers, both individually and as a group. For this reason, a collective auto-ethnography research approach was chosen, developed over a six-month period. Auto-ethnography combines the perspective of ethnography, based on participant observation and immersion in the studied social and physical context, with the practice of

autobiography (Chang, 2016). This approach, like other autobiographical one, has often been adopted to analyze outdoor educational experiences (Humberstone & Nicol, 2019; Leather, 2019), because it allows for an in-depth exploration, respectful of diversity. In the case of this study, a collective approach was embraced, in order to empower all the teachers involved and to explore the issue at a group level .

By following the steps indicated by Karalis Noel and colleagues, we aimed to strategically organize the training and research process in order to align the participants with the analysis objectives, the data generation tools, the method of data analysis, and the presentation of the data (Karalis Noel et al., 2023).

The data generation methodology was based on the phenomenological vignettes research approach (Agostini et al., 2024; Zadra & Agostini, 2024). The vignettes are written individually and emerge from field experience, supported by drafts based on observations. Then, at the group level, the vignettes are revised, validated, and rewritten. The vignettes should not explain but show, inviting the reader to connect and co-experience the described situation. After the writing sessions, emerging themes are discussed in collective reflection sessions.

Emergent findings: a vignette and some thoughts

In the context of this paper, after introducing the theoretical framework, the context and the methodology we will present briefly some insights from the finding. In particular, we will present a vignette with some emergents thoughts.

The Silver Road.

I was walking in the kindergarten garden, when a child came running up and, speaking quickly and with great passion, invited me to go with him.

“Come and see.” He said to me.

“Did you find anything interesting?” I asked.

As we headed towards one of the two large lime trees near the wall.

“Look, a bright stripe” he said to me while pointing with his finger to a long silver line that ran along the trunk for its entire height.

We stayed there, watching.

If we moved to the right or left, the color of the line changed, sometimes it disappeared.

In some places, running along it from our height to the top, it made deviations, or curves, or even giruli.

As we looked up to the sky, the sound of our amazement was synchronized “ooooh but, look who’s there!”

A snail stuck to the bark was resting inside its little house. Motionless (vignetta by Vittoria Ferraro).

Teaching with place emerges as a complex and not linear process, in which dimensions related to learning, well-being, and personal research are intertwined. The teachers participants, considering their daily practice, noted not to be fully aware of their relation with place and nature. They seems to be more attentive to the children interaction with place, and to teacher-children relations. "You need to awaken your attention" if you want to explore your relation with the place in connection with teaching. The process of writing and reviewing the phenomenological vignettes seems to support this kind of attention awakening.

Some vignettes show a sort of direct relation between teachers and places, experienced as curiosity, attraction, wellbeing, wander and sensory involvement. More often children are experienced as facilitators of a deeper and more nuanced relation between teacher and place. Children connection with the place, their intimate, playful, scared or even destructive interaction with natural being or context works like a lens that opens up new possibilities for teachers too and forces them to take new perspectives or to intervene in the process.

In conclusion, what emerges from this ongoing investigation is that teaching with place represents a complex and multifocal experience, which directly and personally engages teachers. This invites us to consider which training and reflective practices can effectively accompany the professional development of place-based teachers: combining auto-ethnographic and vignette research approach seems a promising practice of support and development, to be further explored in outdoor studied.

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The explorer's glasses: Picture books as resources to foster wonder and creative thinking outdoors with children from 0 to 99 years.

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Introduction

We live in a context in which the approach to reading and storytelling often seems to forget the embodied and sensorial dimension of literary experience. Abram (1996), in a significant text dedicated to the connection between ecology and language, noted how language itself, especially in its written forms, has often distanced humans from the world of nature. A language separated from the body and the environment accustoms us to living as if ecological relationships were abstract and did not engage us in a vibrant and embodied way. More recently, Tim Ingold (2020) has emphasized how words are the most authentically human means of encountering the world. Ingold invites us to seek new ways of active and participatory experimentation with language, writing, and reading, so that these can generate relationships in and with the world and the environment. From this theoretical background, we propose some reflections on a specific literary objects: picture books. They seem to embody certain characteristics that facilitate and promote engagement with language that is not only cognitive, but holistic, that is, corporeal, aesthetic, affective, relational, and inquisitive. By combining images and words, they offer a complex and rich reading experience, engaging the sensorial and imaginative dimensions. Picture books are often used and appreciated in early childhood education; they are extraordinary resources for promoting a narrative understanding of the world as well as for introducing naturalistic or scientific knowledge. For this reason, they are extremely suitable for accompanying outdoor and place-based educational experiences, as they can promote a connection between place and text, fostering attentive, curious, and critical gazes. As Eggensen (2024) noted, place-based reading activates a bidirectional attention that fosters curiosity and awareness both about the place, with its natural, cultural, and social elements, and about the text. Reading with place helps us understand even the pages of a written text with greater depth and enjoyment.

Children exploration in the outdoors with picture books

So, we can set off through the streets of our city together with *Tiny, perfect thing* (2018), written by M.H. Clark and illustrated by Maialine Kloppe. On page 2, we read together with the children this phrase: “Today we keep our eyes open for tiny, perfect things”. Furthermore, we can recall some small things we noticed during the walk from school to the park. Or we can be inspired by the images on the central pages, where the illustrator has given shapes and colors to the world of discoveries a child can make by looking closely at the ground. Trained to carefully observe the illustrated pages, we can turn to the landscape around us to pay attention to many small elements, perhaps even picking them up ourselves. The text here serves as a call to action and attention, suggesting a way of experiencing the outdoors that is very close and consonant with the world of childhood.

Exploring a place also means asking ourselves what the place we are in now might be like in a different season or at a different time of the day. The garden we are now exploring is home to numerous living beings, both plants and animals, besides ourselves. Right now, we can see some of them and thus have a direct experience. What would this experience be like if it were night now? The book *Une nuit* written by Marie Lescroart and Emmanuelle Houssais can help us in this regard. Leafing through its pages, we are immersed

in images that evoke summer and winter nights, when the place takes on a different aspect. Reading the short texts, we discover life happening in the darkness or under the starlight. Only then do some of its inhabitants become present and pass through it. Thanks to a place-based reading of *Une nuit*, children can imagine an elsewhere and an otherwise, drawing inspiration both from the place they observe here and now and from the pages of the book, in a reciprocal and generative exchange.

Exploring Picture Books with Adults

Picture books can also be effective and fascinating educational resources when working with young people and adults. Reading them can invite thoughts of wonder, generate metaphorical connections, and support open and creative thinking. Some picture books are particularly suited to an adult reading, due to the coexistence of different layers of meaning. Barnett's picture book, titled *Same and Dave dig a hole* (2014), is a very clear example. Here, the reader playfully follows the adventure of the two friends and their dog, who dig for an entire afternoon in search of something spectacular, only to fall into a deep sleep. Then, their animal friend, guided by a pre-rational intuition, digs a little further and causes the ground to collapse. A chasm opens up into which the three protagonists fall, sleeping until they land on the grass where they began digging. Has anything changed since the beginning? Have only details of the landscape changed, or have they also become different people? A text like this, enjoyable for all ages, is clearly a metaphor for life, for the pursuit of happiness, intertwining dreamlike motifs and opening up to interpretations of a symbolic or psychoanalytic nature.

Equally stimulating is the reading *On a Magical Do-Nothing Day* by Beatrice Alemagna (2017). The text explores a series of themes such as parenting, fatherhood and motherhood, the value of free play in nature, the educational distance between parents and children, the value of experiences of contemplation and inaction, and the meaning of silence. All these themes are brought to bear within a compelling narrative and thanks to magnificently crafted illustrations. Approaching this text in a place-based setting can broaden its educational and reflective possibilities. What would it be like to approach reading this picture book after only a few minutes of silence with instructions to do nothing? What thoughts might be fostered by reading this text in a dense forest, perhaps on a dark, rainy day? Reading then becomes a reflective practice, an eco-narrative practice, capable of emotionally engaging participants, even those no longer children. In other words, it can be an experience of listening and thinking that can bring into focus one's relationship with nature, with free time, and one's roles as parents or teachers.

An eco-narrative perspective

We have already cited several works that have explored the relationship between reading and places in school contexts, both theoretically and empirically (Eggensen, 2024; Laneri, 2024). To these studies, we can add some interesting theories that have explored the relationship between free space and places from an eco-narrative perspective (Demetrio, 2024). This involves recognizing the connection between ecological experience and narrativity, which connects memory, presence, and anticipation of the future in frameworks that generate meaning and existential orientation. Including the land and places in the narrative of oneself and the world promotes a "different geo-humanistic awareness of the certainty of belonging empathically and rationally to the land" (Demetrio, 2024, p. 11).

Picture books are often read in groups. Through group place-based reading, networks of relationships are generated that might shape eco-narrative communities (Reato & Fedeli, 2025). The experience of community readings establishes relational bonds between those who read, those who listen, and those who exchange interpretations, resonances, and feedback. A place-based reading experience also involves other living beings, in an extended ecological and narrative community. Promoting outdoor reading experiences not only compensate for the time spent primarily indoors, but also open up relationships for living beings (Paulsen et al. 2025). Picture books can also support addressing these challenges. They become like glasses worn by an

explorer, capable of revealing things small or large, ordinary or spectacular, in each case and always deserving of careful, critical, and questioning gaze.

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Beyond the Break: An Autoethnographic Exploration of Women's Skill Acquisition in Surfing and Outdoor Adventure

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Graduated in 2024 from the University of St Mark and St John with a 1st Class Honours degree in Outdoor Adventure Education. This piece of research was undertaken as part of the final year research honours project, and was adapted and developed to be presented at the 2025 EOE conference in Rimini. Academic and research interests include feminism, and the experiences of women and minority groups in the outdoors, specifically those with disabilities and long term health conditions.

Skill acquisition is recurring and fundamental to survival, challenging us throughout our lifespan (Button et al., 2021). Unique to each individual, our experiences as women in the outdoors must be considered as they continue to impact our ability to learn and develop within the industry. Various factors influence women's skill acquisition in outdoor adventure education (OAE), such as a lack of representation, a participation gap, and low-self confidence (Warren & Loeffler, 2006). By deepening our understanding of these topics, we can inform practice and consider the question: how could we as outdoor educators create learning environments that are beneficial not just to men or women, but to everyone?

Discourse surrounding gender in OAE suggests that outdoor education is a traditionally hegemonic masculine domain, which impacts women's representation and participation (Blaine & Akhurst, 2021). Literature supports this claim, reiterating the culture of masculinity within the early OAE movement, with organisations such as Outward Bound being founded on the aim of building strength and character; making 'men out of boys' (Freeman & Seaman, 2020; Overholt & Ewert, 2015). While there is evidence internationally of increased female participation in OAE, it is argued that women and ethnic groups remain underrepresented in the sector due to various factors such as physical, economic, and cultural barriers faced by these individuals, only exacerbated by the media's portrayal of male and female roles in the outdoors (Gray et al., 2017; Humberstone, 2000); In surfing, Hunter (2019) discusses the misogyny and sexual objectification of female athletes which impacts participation and progression. The unreasonable aesthetic standards held to professional female surfers to become 'marketable' is referred to as sexploitation, in which sponsorship highlights the sexual attributes of their bodies to promote the sport (Phillips, 1997). This creates a disparity between the role models available and how well other women are able to identify with them, reducing participation due to lack of representation, which extends further to societal subgroups including minority ethnic backgrounds and those with disabilities (Colley et al., 2022). Ultimately, these barriers to participation naturally inhibit an individual from being able to acquire a skill; in order to learn how to do something, you must be able to participate in doing it.

Gromeier et al. (2019) researched physical differences between male and female skill acquisition, finding that female participants often use their body differently to males, likely due to differing physiology. This created a seemingly lesser ability in female participants, however Gromeier et al. (2019) recommend this is the result of a male-focused pedagogy - teaching females to use their

female body may overcome problems caused by assuming all bodies work as the male body does. Notably, when studying the influence of paternal co-participation on girls; participation in action sports, Nash and Moore (2021) found that facilitation of girls' participation is heavily reliant on father figures, which may exacerbate this issue.

Many aspects of my journey of learning to surf were impacted by being female, and this is not a unique experience. In fact, Dingle & Kiewa (2006) discuss how technical skills are an integral part of OAE, and found that outdoor instructors and leaders would often note the struggles that women experienced in developing them. It is believed that there are a number of societal and biological factors which influence this, for example spatial ability, technical conditioning, and gender role socialization (Warren & Loeffler, 2006). Surfing comprises a mix of physical skills, for example paddling and balance, as well as non-physical skills such as understanding environmental conditions. Considering these factors and the parallel of skills involved in surfing, it is understandable that men and women should have different experiences and successes when learning to surf.

This autoethnographic research takes a feminist perspective aiming to bring awareness to the barriers and issues faced by women in the broader discourse of OAE. Allen and Percy (2005) describe feminist autoethnography as, 'a method of being, knowing, and doing', combining storytelling of the marginalised and making use of our own experiences. To me, this term perfectly encapsulates my own research. By engaging in a reflective practice throughout, I developed an interpretivist methodology, an approach which does not rely on statistical analysis and does not involve perfect objectives (Gichuru, 2017). Instead, through my own embodied experiences, I have been able to interpret meaning from my musings as I navigated my own journey of skill acquisition as a woman.

Humberstone and Nicol (2020) describe autoethnography as a 'holistic interpretative qualitative research approach', which uncovers unique insights into embodied experiences, going on to discuss the notion of 'being and becoming' within social, cultural, and political contexts. While there is a lot of value in this method of research, especially in the context of adventure sport (Porter & Couper, 2023) autoethnography is also a contested method of research, and in some cases even controversial. Sparkes (2024) in particular discusses how the decision by various scholars not to mention ethical concerns in their recent autoethnographic publications is problematic as it may lead 'newcomers' to believe that autoethnography is an 'ethics free zone'. Further to this, Delamont (2007) states that it is in fact 'almost impossible' to write and publish autoethnography ethically. As such, I personally made a concerted effort to identify and allow for any of the ethical implications of my research, for example explicitly gaining consent from those around me to conduct research in their presence.

The introspection and reflexive practice of autoethnography allowed me to connect with the wider discourse of topics such as women's sense of competence, gender roles, and participation, all while relating these to my own experiences. This afforded me a greater understanding of the impact of social structures and concepts on women's experiences of OAE, but further to that I observed the impact of the literature I was reading on how I conducted my research. This phenomenon consisted of a process of reading a piece of research, assimilating the information, and then acting on it the next time I went out to conduct my own research. A prime example of this is how my awareness of who I was surfing with shifted and became heightened after reading papers on the effects of all-girl groups in OAE (Whittington et al., 2011). As such, I actively sought to experience this which became an incredibly empowering and pivotal point in my research.

Prominent themes presented throughout the research process, such as the influence of sense of place, and the impact of others. Two of the key themes that emerged within my data were how learning to surf developed my sense of place, and how my existing sense of place influenced my learning to surf. The two, I found, are intrinsically connected. Often I surfed at beaches that are familiar to me, which instantly comforted me and reduced any stress I was feeling. Though, when searching for the best swell, I started surfing at new beaches and revelled in how quickly I was forming memories and meaningful attachments; as Tuan (1997) suggests, turning spaces into places. The connection between my sense of place and my skill acquisition was prominent, and yet there is limited literature discussing this. As such, I recommend this is an area that would benefit from further research.

Notably, the people that I surfed with had a huge impact on my session, including how I felt about it and how much I gained from it. For example, when surfing with an experienced instructor, I was able to learn new skills and develop my performance, however when surfing with less experienced friends the focus would shift away from acquiring new skills, to practicing independence. This also took away a feeling of inadequacy as I was surfing with people on a similar skill level to me which felt unifying. When I consciously chose to surf with one other female friend, what transpired was incredibly empowering; a positive session in which my confidence in myself and my ability flourished. I felt confident, competent, and supported. Finally, the question still on my tongue – am I a surfer now? At what point in our skill acquisition journeys are we qualified to call ourselves part of the wider community? I feel the true answer is: anyone who surfs is a surfer. Yet, I find myself experiencing periods of imposter syndrome, a persistent fear and doubt in my ability to be ‘good enough’ (Mullangi & Jagsi, 2019). Again, I am not the only woman to feel this, in fact women are more likely to experience this than our male counterparts (Cusack et al., 2013). Still, though, I stutter when asked if I surf.

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Risk and Opportunity in Outdoor Education: Reflections from Educare nel Bosco Pianoro

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Canalescuola, Educare nel Bosco, Creativity Garden

Since 2017, Educare nel Bosco Pianoro, located in the rolling hills outside Bologna, has offered an educational experience rooted in nature, freedom, and autonomy. This forest school, part of the Canalescuola social cooperative network, promotes a model of learning where risk is not avoided but acknowledged as an essential part of child development. The concept of risk, long perceived as synonymous with danger, is reconsidered here as a developmental and educational opportunity. As Paul Slovic noted, “Humans invented the concept of risk to cope with the dangers and uncertainties of life. Although dangers are real, there is no such thing as an objective or absolute risk”. In the 1990s, a cultural shift increasingly associated outdoor environments—whether urban or wild—with danger. This led to the securitisation of many public spaces, where the term “safe” became automatically attached to “play.” Yet, the long-term implications of growing up in over-controlled environments raise essential questions: What kind of freedom will children understand as adults if they grow up without the experience of uncertainty?

Nature offers a complex and rich landscape of experiences, among which risk stands out as a pedagogical element of value. The aim is not to eliminate it, but to help children progressively develop their ability to assess and manage it, through regular and direct experience. Each situation involving nature contains elements of both opportunity and risk, which only our approach can define as useful, dangerous, or beneficial.

Risk is not a fixed or objective condition—it is a social construct used to navigate the unpredictable aspects of life. It encompasses cognitive, emotional, social, and developmental dimensions. It is a process, an internal negotiation that mirrors play itself: a dynamic decision-making exercise that requires the individual to interpret their own sensations, make choices, and manage uncertainty.

Selima Negro, in *Pedagogia del bosco* (2021), identifies four widespread misconceptions about risk:

1. Risk equals danger – In reality, risk is closer to uncertainty or even opportunity. Risk-taking means making a decision without knowing its outcome in advance. While the outcome may be undesirable, it often leads to positive developments.
2. Risk management is only for experts – Everyone navigates risk daily; it is a shared human experience.
3. Children are unaware of risks – In truth, children actively seek out risk in play and are quite capable of managing it. Every learning process inherently involves risk, as it requires exploration and unpredictability.
4. Risk must be eliminated – Removing risk entirely deprives children of the chance to develop critical life skills such as self-efficacy, creativity, conflict resolution, and resilience.

Effective strategies for engaging with risk in daily life are not exclusively rational. According to Zinn (2008), so-called “in-between strategies” combine instinct (for speed and efficiency), emotion (to understand the value of choices), and trust—in oneself, in others, and in the environment. Risk management thus becomes not just a cognitive task, but an emotional and social one, embedded in context and community. The work of evolutionary psychologist Ellen Sandseter (2007) further contributes to this discussion by identifying six types of “risky play” that are developmentally valuable:

- Play involving heights
- Play involving speed
- Play with tools
- Rough-and-tumble play
- Play involving getting lost or hiding
- Play near dangerous elements

These categories illustrate how risk-taking is not an exceptional or marginal activity but a key component of everyday play. Through such experiences, children test their boundaries, build self-awareness, and develop practical problem-solving skills. At *Educare nel Bosco Pianoro*, educators embrace a pedagogy that does not aim to remove risk, but rather to support children in navigating it. Safety is redefined: it is not the absence of risk, but the presence of the skills, experiences, and emotional and social resources necessary to manage the unexpected. This approach empowers children to explore their limits and cultivate autonomy. Importantly, the adult’s role in these contexts is not to prevent failure, frustration, or even minor injuries—but to create safe conditions in which such outcomes can be experienced as part of learning. A child who never makes mistakes, never gets hurt, or is never challenged, is not being adequately prepared for life. The adult’s responsibility is not to eliminate difficulty, but to guide children through it, offering support without removing agency. This research-based and reflective practice recognises risk as a pedagogical tool that helps children grow into confident, capable, and adaptive individuals. It invites a cultural shift: one that moves away from excessive control and toward trust, complexity, and shared responsibility.

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The Italian Outdoor Learning Schools Network: Training, Research, and Pedagogical Innovation.

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The Italian Outdoor Learning Schools Network was established in 2016 with ten pioneering public schools. Today, the Network includes more than 130 schools across twelve Italian regions, encompassing both primary and secondary institutions. From its inception, the Network was launched through collaboration with local administrations, Environmental and Sustainability Education Centres, and, most notably, the University of Bologna. Over time, this collaborative foundation has evolved into a dynamic movement that brings together school leaders, teachers, academics, and environmental educators, all committed to supporting schools in recognizing natural and urban outdoor spaces as meaningful place-based learning environments (PBE).

Inspired by the Natural Connections Demonstration Project (Edwards-Jones et al., 2016), the Network promotes a place-responsive education approach (Lynch & Mannion, 2013), grounded in the principles of Outdoor Learning (Waite, 2011), Outdoor Education (Rickinson et al., 2004), and Place-Based Education (Smith, 2002). The network aligns with the perspectives of Education for Sustainability (Davies, 2008) and the broader framework of the 2030 Agenda (UNESCO, 2017), while being closely connected to the Italian National Curriculum Guidelines (MIUR, 2012/2018), Civic Education (L.92/2019), and the National Assessment System (L.22/2020).

The aim of the Network is to bring together training and research as foundational pillars to support the development of Outdoor Education (OE) and Outdoor Learning (OL) practices rooted in local contexts. In particular, the training model that each school adopts upon entering the Network is based on a three-year agreement, ensuring a long-term commitment to professional development that is experiential, participatory, and locally contextualized. Training pathways are co-designed with schools, starting from their internal resources and the assets of their surrounding territories, thus rejecting the imposition of externally predefined models. At the same time, schools joining the Network engage in research pathways, including participatory research, monitoring, and practice-based inquiry. These activities involve coordination with local institutions and national educational authorities, support for the documentation and dissemination of learning processes, and the consolidation of a shared training model grounded in real-world practices.

The Network, through the action of research and training, and the practices of the schools involved, promotes a systemic vision of education (Bateson, 1972; Morin, 2000), rooted in the ecological perspective (Bronfenbrenner, 1979), embodied cognition (Varela, Thompson, & Rosch, 1991), and active learning (Freinet, 1972; Dewey, 1938). Outdoor spaces are viewed as powerful learning environments that promote situated, integrated knowledge (Castoldi, 2020) and foster connections between natural, urban, and social dimensions.

All these fundamental frameworks, take places in practices that are guided from four principles of the Network, outlined in its shared manifesto, which emerged from a co-construction process with teachers. These principles include: promoting active and cooperative teaching; valuing open spaces connected to both natural and urban environments; supporting children's well-being through

attention to health and safety; and placing sustainability at the core of educational action. Over time, these principles have been further articulated in regional training plans and contextualized within each school's pedagogical identity. The goal is to cultivate meaningful educational practices that are open to interdisciplinary collaboration and capable of addressing global challenges through local engagement. In this light, OE becomes a powerful lever to regenerate practices and experiences of both adults and children, to renovate the school as a place of shared well-being and critical engagement with the world, and cultivate sustainable, democratic, and inclusive educational communities.

Rooting in the territory is a fundamental value that is placed at the base of research projects, training and consolidated practices in the schools of the Network. Teachers too often feel overwhelmed by projects that come from outside the school world, from a duty to be, a duty to do without sometimes understanding the connections and hooks with the context, their specificity and the characteristics of their school and their students. What the Network aims to promote, instead, is a system of schools that avoids the idea of an "outdoor" that is only nature and therefore the context is between nature and urban, but at the same time also to underline the importance of meeting a different professionalism outside and the possibility of building new ways to activate critical thinking, transversal skills and new awareness. All these to promote an Education for Sustainability (Davis, & Elliott, 2024) capable of supporting a noological revolution (Bateson, 1976), that is configured as a revolution in our way of thinking, to give value to a pedagogical dimension that restores meaning and power to childhood and teachers in being able to do something concrete for the well-being of the environment and themselves.

Since the establishment of the Network, several research pathways have been carried out to explore its evolution and the practices implemented within it. Over time, the research has progressively focused on investigating how OE and OL can be integrated into curriculum design - particularly in terms of methodologies, professional competencies, and both disciplinary and cross-disciplinary content. Other key areas of inquiry have included the role of school leaders in promoting active OE practices and the correlation between the characteristics of outdoor spaces and the learning opportunities they afford. These dimensions have been examined through various research efforts, including the analysis of the relationship between the implementation of OE practices and factors such as work-related stress and job satisfaction (Schenetti et al., 2023), the analysis of the state of the art of OE in the Italian school system (Giunti & Schenetti, 2024) and the role of experiential learning in supporting the ecological transition (Schenetti et al., 2024).

The wellbeing of outdoor education teachers in the Network schools was investigated in a study conducted in 2023 by the University of Bologna in collaboration with Sapienza University of Rome (Schenetti et al., 2023). The research employed: the Depression Anxiety Stress Scales - DASS-21 (Lovibond & Lovibond, 1995); the Positivity Scale - P-scale (Caprara et al., 2012); the Need for Recovery Scale - NFR (Van Veldhoven & Meijman, 1994); and the Revised School Level Environment Questionnaire (Matteucci, Guglielmi & Lauermaann, 2017), involving 74 teachers practicing OE and a control group of 49 teachers working mainly indoors. The data analysis did not indicate a direct effect of OE on teachers' levels of stress, anxiety, depression, or work-related fatigue. However, the significance of school climate and organizational factors clearly emerged. Specifically, the practice of OE was statistically associated with better levels of teachers'

psychophysical well-being when the school environment was characterized by shared responsibility, cohesion, openness to innovation, and availability of resources. These findings align with other research (Mannion et al., 2016; Schenetti, 2018), showing that OE can benefit not only students but also teachers, enhancing their motivation and overall well-being. However, this study reveals that the approach alone is not sufficient: when teachers do not feel supported by their colleagues or by school leadership, they often experience frustration intense enough to lead them to abandon OE practices altogether. This suggests that effective leadership must be participatory and that OE, while powerful, must be integrated into a shared pedagogical vision to ensure its long-term sustainability and impact.

A further study (Giunti & Schenetti, 2024), involving 240 schools from three National Outdoor Learning nNtworks, launched in May 2023 and activated in an ongoing national research initiative promoted by INDIRE and the University of Bologna, explored the impact of the Network of school in outdoor dimensions. The research aimed to understand how OE and OL can foster student agency, promote ecological and experiential teaching methods, and support teacher professional development through reflective practice and research-based approaches, but also explored teachers' motivations for joining in the school networks and expectations toward them.

The analysis of the responds from the questionnaire assigned showed the important role of the School Network for the impact of high qualitative OE and OL practices. When asked “*What motivated you to join the network?*” responses pointed to teacher motivation, followed by contextual factors such as accessibility of the territory and the educational vision of the school community. These data resonate with Rogers’ theory of innovation diffusion (1995), suggesting that pioneer teachers - those who step outside their professional comfort zones and challenge routine practices - can serve as powerful agents of change. Similar conclusions were drawn in a Harvard study (Perkins & Reese, 2014), which emphasized that the shift from isolated innovation to systemic change depends on a strong collegial culture and a shared vision within the school community. Innovation requires a significant shift in teacher stance: educators must adopt a research-oriented mindset and act as pedagogical designers who can connect outdoor and classroom learning while engaging meaningfully with local communities. Moreover, to the question “*What do you expect from the network?*”, the most frequent response was the opportunity for dialogue and mutual support with other teachers, perceiving the network as a powerful driver of change: a symbolic and professional space that foster reflective dialogue, research, and sharing (Wenger, 1998, 2010; Schön, 1993; Dewey, 1929) that can support educators move away from entrenched routines toward experimentation and co-construction of new practices (McCarty et al., 2004; Schenetti et al., 2024).

These findings led to the development of national experiential training programs inside the National Network aimed at fostering an open, interdisciplinary professional community committed to constructing and disseminating new knowledge and educational practices in the field of OE and OL (Schenetti et al., 2024). One notable example is the 2024 training-research initiative promoted by the National Network of Outdoor Schools, in collaboration with Nature Rock and Casa Elementare, with the participation of Christian Mancini, an Italian expert in experiential learning. This initiative brought together 43 teachers from 10 different regions for a collective training experience grounded in experiential methodologies and oriented toward ecological transition.

In today's interconnected world, educational institutions are increasingly expected to design training pathways that help educators connect teaching and learning with real-life contexts. The ecological transition, calls for a profound rethinking of educational goals, linking global challenges such as sustainability and active citizenship with local experiences, in order to promote ecological awareness and responsibility from early childhood. In this perspective, OE, experiential learnings, and reflective and active methodologies become essential tools for fostering well-being and cultivating renewed relationships with places and communities. For this reason, the training program combined experiences in natural settings and urban contexts (especially in and around the city of Bologna), involving participating teachers in a research-based professional development journey aimed at promoting reflective practice and ecological transformation. To trace the learning processes and emerging transformations, the program employed a mix of semi-structured journals, core routines, and playful experiential activities.

The results of this research, in continuity with the others, pointed to both personal and professional transformation of teachers involved. On a personal level, it was reported an increased ecological sensitivity, emotional renewal, and a new perspective on life and on the world. On a professional level, teachers began to view themselves more as facilitators of learning, placing greater emphasis on relationships, student agency, and well-being within their educational and didactic practices. Moreover, many participants also expressed a strong desire to remain connected with each other and with the University, returning to their schools with a sense of belonging to a broader movement for change.

Finally, retracing the research pathways that have highlighted the changes and processes activated by the teachers within the National Outdoor Learning Schools Network, can all 130 schools be considered fully "outdoor schools" after the three-year training process? Perhaps not entirely. However, what has truly emerged as the most meaningful outcome is the establishment of a *professional learning community* (Wenger, 1998, 2010), a living ecosystem of relationships, knowledge, and shared values, that has become a space for reflective dialogue, mutual support, and pedagogical innovation, where the sharing of practices, emotions, and experiences fosters both personal and professional growth. Motivation, trust, and a renewed sense of educational purpose emerge as key indicators of this collective transformation. Crucially, the network empowers educators to return to their local contexts equipped to keep the outdoor approach alive, bringing learning back to the places where children live, grow, and play.

The network has become a fundamental relational ecosystem, where informal exchanges between peers generate shared knowledge and fuel continuous innovation. This vision aligns with the broader phenomenon of educational networking (Castells, 1996), which offers an alternative to top-down professional development by promoting flexibility, self-regulation, negotiation, and co-construction (Lieberman, 1992). In this perspective, the Network has become a platform for the emergence and the diffusion of transformative practices in OE. What we are witnessing is a process of *scaling innovation* (Murray et al., 2010): a shift from isolated, pioneering initiatives to a shared, systemic movement toward educational transformation (Hargreaves, 2003). In this way, by rediscovering the learning potential of nearby nature and urban adventures, the Italian Outdoor Learning Schools Network is contributing to a broader cultural change, one that reimagines the relationship between schools, territories, and the living world, creating spaces that value human

resources and foster meaningful connections, through real relationships with others and along the environment to which we all belong, to foster the ability to *feel well in the world*.

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Bridging Inquiry and Eco-Literacy: Place-Based Education in the School Pond and Forest School Networks

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Extended abstract

While learning indoors is the norm in most educational settings, the outdoors has been the traditional venue for learning throughout human history (Mann, Gray & Truong, 2023). Outdoor place-based education emphasizes learning through direct engagement with the natural environment. It fosters inquiry, critical thinking, and eco-literacy by connecting students with the ecosystems that surround their schools. When students learn in and from nature they develop a deeper understanding and appreciation of the world around them (Ayotte-Beaudet et al., 2025). However, despite increasing evidence supporting its benefits, outdoor learning is often perceived as peripheral to mainstream teaching and learning practice (Aylward, Coulter & Farrelly, 2025).

While progressive curriculum changes have taken place over the past quarter century (Gleeson, 2022), integrating outdoor environments as structured educational spaces is still underdeveloped (Oberle et al., 2021). As Barfod and Bentsen (2018) argue, educators should not merely ask how to

“fit” outdoor learning into the curriculum, but rather explore how curricular content can be effectively taught outdoors.

This study focuses on regular schools in Northern Spain that actively utilize outdoor ecosystems through their participation in two robust networks: the School Pond Network and the Forest School Network. The School Pond Network consists of 52 schools that have created ponds—often on school grounds— and are committed to using them at least once each term. This network is coordinated by Aranzadi Science Society, and organizes annual meetings to facilitate the sharing of practices. The Forest School Network includes 39 schools that visit nearby forest areas at least weekly. Coordinated by Kutxa Fundazioa, a bank’s benevolent foundation, the Forest School Network also supports annual "Education in Nature" conferences. These networks serve as valuable platforms for peer collaboration and pedagogical innovation, and provide critical support such as training, mentoring, inclusive design of learning environments, and the physical adaptation of outdoor sites.

The training models provided by each network reflect distinct pedagogical orientations. The School Pond Network offers a basic 2-hour session led by Aranzadi Science Society and covering ecological concepts, basic species identification (e.g., amphibians, odonates, reptiles), and a protocol for guiding sampling and scientific observation. This model emphasizes structure and standardization to ease curriculum integration. In contrast, the Forest School Network delivers a 15-hour training that is free of charge and significantly more flexible. It introduces participants to principles of free play, species taxonomy and diversity, geology, and the design of Learning Situations grounded in local LOMLOE curriculum. This training encourages open-ended exploration and learner autonomy.

The primary aims of this study were twofold: (1) comparing the patterns of use between school ponds and forests near schools and to explore the causes behind these patterns; (2) identifying the challenges teachers face when implementing outdoor learning in these two contexts and (3) examining the extent to which teacher training shapes pedagogical approaches and student outcomes. To address these aims we adopted a mixed-methods approach, combining survey data with semi-structured interviews conducted with teachers from both networks. Data was analyzed using thematic coding to extract common categories related to pedagogical practice, training influence, curricular integration, and student engagement.

The findings revealed distinct usage patterns between the two ecosystems. Forest-based learning was predominantly used in Early Childhood Education and the first cycle of Primary Education. Conversely, ponds were most often utilized in the second and third cycles of Primary and even Secondary Education. Notably, there were no 2-year-old students in the Pond Network and no students older than 12 in the Forest Network, reflecting wider trends in outdoor education, where younger students are more commonly engaged (Bilton, 2010; Maynard, Waters & Clement, 2013; Rickinson et al., 2004).

Teachers across both networks reported common barriers. Logistical issues—such as student-teacher ratios, material availability, and accessibility of outdoor spaces—were cited by 28.5% of participants. These findings align with prior literature, which identifies practical constraints like large class sizes, lack of support staff, and transportation challenges as key impediments (Oberle et

al., 2021). High staff turnover further compounds these problems, especially when substitute teachers lack prior training in outdoor education.

Perhaps most significantly, the study highlighted a widespread lack of confidence and content knowledge among teachers regarding outdoor pedagogy. Many educators expressed uncertainty about their ability to lead outdoor activities, citing insufficient knowledge of local ecosystems and science process skills. This lack of preparedness often led to hesitation or superficial engagement with outdoor environments. Actually, in Northern Spain's Early Childhood and Primary Education degree programs, only one 6-credit course usually involves natural sciences—something educators consider insufficient to build strong ecological literacy or confidence outdoors.

Curricular integration emerged as another major challenge, identified by 21.4% of participants. Teachers reported difficulty reconciling outdoor activities with the formal demands of national curricula, particularly in content-heavy subjects. Dymont (2005) noted that many teachers struggle to align outdoor experiences with mandated learning outcomes, often relegating them to extracurricular or occasional events. However, some schools have found ways to formally embed outdoor activities into their timetables—using hours from interdisciplinary projects or community service programs—resulting in more consistent and productive outdoor experiences.

Regarding to student engagement, both environments show high engagement but with different dynamics: in the forest, students encouraged to take more spontaneous participation due to more flexible activities. These are often proposed by the students themselves, allowing their design and increasing the level of interest in them. On the other hand, at ponds students follow standardized protocols that facilitate data collection but may limit students' exploratory potential.

The study's most significant finding is that teacher training—not the ecosystem itself, nor the age of the students—primarily shapes pedagogical practice. Educators trained in forest settings were more likely to adopt open-ended inquiry methods, responding flexibly to students' interests and facilitating experiential learning and autonomy through observation and exploration. However, they generally encouraged simpler science process skills (such as description, comparison, and long-term observation) and presented more challenges when integrating activities into the school curriculum. In contrast, educators trained in pond-based methods relied more on teacher-led activities, structured observation, and complex skills such as inference, hypothesis formulation, data collection, and interpretation. These approaches facilitated curriculum integration but limited pupil autonomy. Among schools that have undergone both training programs, consistent pedagogical patterns can be observed. Notably, the same educators demonstrate a more directive approach in pond-based activities, while favoring a more open-ended methodology in the forest context.

These patterns reflect broader tensions in outdoor education between structured and emergent pedagogies. While structure aids curriculum alignment, it can also constrain student inquiry. Meanwhile, open-ended approaches foster creativity and engagement but present challenges for assessment and classroom management (Thomas, 2019; Dymont et al., 2018). Therefore, each of the approaches could take certain elements from the other (forest school could approach the methodology used at ponds and viceversa), so that both strategies converge in an approach based on authentic inquiry, with children's questions and interests as their starting points, but properly guided by the teacher, not constraining the inquiry but allowing child-led activities.

The implications of these findings are substantial. Firstly, there is a pressing need for more comprehensive pre-service and in-service teacher training in outdoor education. Training should not only include technical knowledge of ecosystems and science skills but also pedagogical strategies for curriculum integration and student engagement in science practices. Teachers need support to develop pedagogical content knowledge for outdoor settings, understanding both what to teach and how students learn in dynamic, natural environments (Dyment et al., 2018), and how to integrate science competences with social and interpersonal competences in outdoor settings. Secondly, systemic barriers must be addressed at policy level. Ministries of education and regional departments should consider making outdoor learning a formal component of the curriculum. Guidelines for curriculum alignment, documentation and assessment in outdoor contexts (or naturalized school settings), as well as bringing nature closer to schools, would empower teachers to implement these practices more confidently and consistently. Financial and logistical support — including funding for materials, training, and staff time — must also be expanded. Thirdly, further research is needed to deepen our understanding of the long-term impact of outdoor education. Comparative research among schools that use nearby forests and ponds in Northern Spain could shed light on how varying cultural and policy contexts shape the implementation and outcomes of these two outdoor learning environments.

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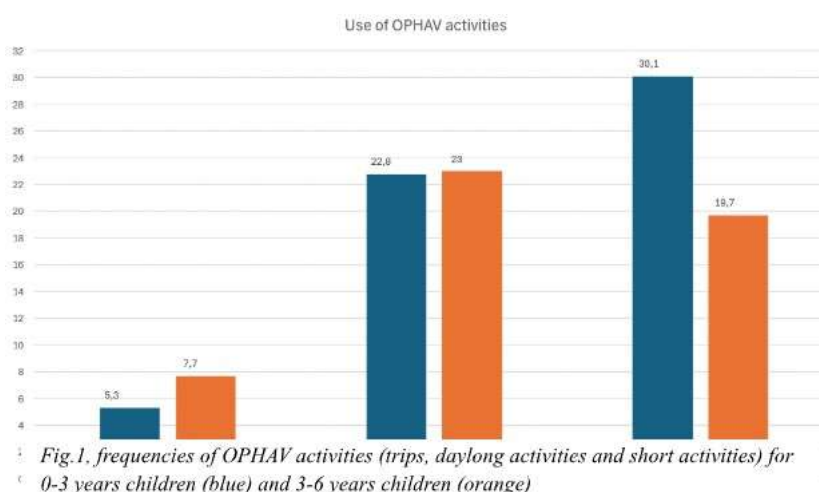
The fjord – a source for education and development

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We present emerging results from a Danish development project called *OPHAV Limfjorden* (2022–2026), which includes all schools and daycare institutions on the island of Mors (<https://www.ophavlaering.dk/>). The project's aim is to promote children's and young people's education, knowledge, and motivation in using and maintaining the fjord's and island's resources sustainably.

This project is a unique example of how schools and preschools can use nearby nature and local partnerships to enhance outdoor education and inspire children's and young people's interest in and curiosity about natural science and sustainability. In the project, all schools and daycare institutions educate local resource persons called “Fjorderangers” and commit to using the beach, fjordlands, and



maritime surroundings for educational purposes.

The project is anchored in a cooperation between schools, pre-schools, local partnerships, museums and the school-education Center on the island and builds upon principles from place-based education. (Gruenewald, 2003; Leather & Thorsteinsson, 2021) Preliminary evaluation results have been obtained through application of the Planning and Evaluation Framework model **RE-AIM**, using the dimensions: **R**each, **E**ffectiveness, **A**doption, **I**mplementation, and **M**aintenance (Glasgow, Vogt & Boles, 1999; Glasgow et al., 2019). The extended abstract focuses on initial findings concerning **R**each, **E**ffectiveness, and **A**doption, with additional insights on **M**aintenance. (**R**each) Survey data shows that every child aged 0–6 years has participated in the project and has visited the fjord a minimum of five times per year. (Fig. 1). In spring 2026, a follow-up survey will be conducted to quantify the number of activities and excursions carried out in preschools, enabling verification of whether these have increased, decreased, or remained stable over the course of the project. The evaluation aims to establish a triangulated perspective on the project's interventions, effects, and impacts. To this end, data from surveys, observations, and interviews will be systematically compared during the analysis.

(**E**ffectiveness)

Interviews and observational data reveal that children's courage, knowledge, and experiential learning have been strengthened through play, engagement with inquisitive adults, and embodied interaction with place-based materials and environments. Fjordrangers reported that children express a desire to visit the fjord with their families during weekends, and many include items such as waders and scientific equipment on wish lists for Christmas and birthdays. The Fjordrangers have increased their focus on the educational potential and opportunities afforded by the fjord. One Fjordranger noted: *"Before, the kids only threw rocks into the water, but now we can go out into the water with our waders. It has created a whole new dimension of learning."* The potential of place-based education has been recognized by the Fjordrangers and management, resulting in the formal inclusion of Project OPHAV in the annual curriculum calendar for every preschool on the island.

(Adoption) Data show that the education of the Fjordrangers is an important factor in implementing the project in preschools. Their role as facilitators and identity bearers strongly influences how other employees adopt the project, become motivated, and contribute to developing activities in the preschool.

Interview data show that Fjordrangers regard their training as a key catalyst for both the implementation and the impact of the project in preschool settings. Educators in the preschools can volunteer to become Fjordrangers—a process supported by management through assistance with registration and the provision of resources to attend the course. Fjordranger training consists of a five-day course conducted at the marine school service, which is linked to the Danish Shellfish Center and the Danish Technical Museum.

The Fjordrangers receive training and teaching from marine biologists, researchers, fishing companies from the local area and other businesspeople who have special knowledge about the fjord and its resources. The curriculum addresses topics such as the fjord's ecosystem, shellfish biology, nutrient emissions, knowledge about invasive species, and sustainable initiatives that can strengthen biodiversity in the fjord. During the course, Fjordrangers experienced various activities that are designed for immediate application in the preschool settings. Some of the activities that were highlighted as particularly useful for the Fjordrangers were e.g. Oyster safari, studying the fjord wildlife and cooking with seaweed and shellfish.

Data shows that the Fjordrangers found it very meaningful to have experienced the activities firsthand, before they were to carry them out in the preschools A Fjordranger stated: *"It is no use if I*



Fig. 2, Educators on oyster safari - training to become Fjordrangers. Fig.3: Fjordrangers and kids from preschool studying wildlife with equipment.



am standing there screaming about the lobster's big claws,- like aaaahhh. Then the kids would become scared... Ha ha ha... I also feel like the Fjordranger course provided a safe environment in which to practice my own courage and reactions before undertaking such activities with the children. I am not sure I would have initiated these activities had I not first experienced them during the course." Multiple Fjordrangers have stated that engaging firsthand in activities during

training significantly enhanced their confidence, particularly in handling and examining larger animals such as hermit crabs and lobsters, as well as operating scientific equipment. (Figs. 2 and 3).

Growing Interest for Science

As the project has progressed, several Fjordrangers reported seeing a growing interest in natural science among their fellow educators, enhancing the quality of nature-related communication with the children. A Fjordranger stated that: *“I feel proud and happy about my role when I see and experience that it leaves a mark. Especially when the children can recount their knowledge and experiences from the different activities, they have participated in. I also feel happy about my role when I see my colleagues show enthusiasm and commitment and take responsibility for developing their own OPHAV curriculum for the group of children they work with”*. Interview data show that preschool teachers feel more courageous and confident in exploring nature and its animals after being guided by their Fjordranger in the preschool.

(Maintenance) Three key factors emerged across the Fjordranger interviews as particularly important for maintaining the project and supporting place-based learning by the fjord:

1. Continuous development of scientific knowledge and practical skills related to marine biology and fjord-based activities through annual courses or training in the Fjordranger programs.
2. Maintenance of the peer-to-peer network among the five preschools on the island.
3. Preservation and expansion of the local partnerships to ensure a more diverse learning environment for children, including collaboration with parents and grandparents possessing relevant professional expertise.

Support from management has also been identified as an important factor for employees' commitment to the project. This includes, for example, integrating the project as a regular item on staff meeting agendas, providing resources and time for planning activities and excursions, and demonstrating management's active encouragement and interest in the project. Several Fjordrangers have reported an increasing interest in visiting local museums and inviting geologists and biologists to the preschools, particularly for the youngest children aged 0–3 years, as this age group is unable to participate in fjord and beach activities to the same extent as older children.

Extension of place

All preschools have adopted a specific approach to extend the learning potential of fjord visits: bringing back materials such as seaweed, rocks, shells, and live animals (e.g., starfish, mussels, crabs). These materials allowed children to engage in play, experimentation, and long-term observation of biological processes, including maintaining environments in which the animals can survive. This approach has a cording to Fjordrangers shown to increase children's courage, curiosity, and empathy for animals, while also enhancing the retention of scientific knowledge. Prolonged activities and materials brought from the fjord have enabled Fjordrangers to conduct more complex scientific experiments, which seem to be challenging for children to fully understand or grasp at the fjord. An activity could for example be: Understanding how blue mussels filtrate water, contributing to cleaning the fjords water from nutrients or learning about crabs biology and living conditions. (Figs. 4 and 5) When conducting this experiment in the preschool, the children have, according to the Fjordrangers, been able to observe the filtration process in the water over



Fig. 4. Learning about the life cycle, biology, and habitat of crabs. Fig. 5: Experiment demonstrating blue mussel water filtration

time, gaining a visual experience and a clearer understanding of the cause-and-effect relationship. One Fjordranger stated: *“When we bring back mussels, stones and shells from the fjord, they remember more of the things they have experienced before. It is like... The feeling of the crab and seaweed makes them remember the feeling they had at the fjord”*.

This perspective aligns with Leather and Thorsteinsson’s argument about embodied sensing in place-based learning: *“The essential issue is about an embodied sensing of the place – seeing, feeling, touching, smelling, tasting – so that the place can be mentally understood”* (Leather & Thorsteinsson, 2021, p. 55).

Fjordrangers have expressed their intention to continue applying place-based learning as an approach to strengthening children’s scientific understanding and see greater potential in using the local nature and its possibilities.

In summary, the OPHAV project has engaged Fjordrangers and other pedagogical staff with sustainability and natural sciences in a preschool context. The next stage in the evaluation process involves data collection from the school context. The project’s evaluation will be conducted through to spring 2026, after which the findings will be synthesised and disseminated in a final published report.

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Healing Gardens and Inclusion in Care Settings: An Analysis of the Impact on Well-Being and Experiential Learning

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Introduction

Over the past centuries, medicine has progressively evolved toward specialization and precision, driven by advances in biomedical research and technological innovation (Aglianó, M., Orsini, D., 2024). This has enabled the transformation of many diseases once considered fatal into chronic, manageable conditions (Bocchia, 2024). A telling example is cancer: once an incurable illness, it has become increasingly common but, in many cases, controllable, with steadily improving life expectancy for patients (WHO, 2022). Precision medicine now targets specific mechanisms of disease, aiming to minimize collateral damage and optimize efficacy. However, this highly targeted approach often narrows the focus to the pathology itself, risking the neglect of the patient's holistic experience and fostering a form of depersonalization in care (Frampton et al., 2016).

This shift has resulted in longer hospital stays, repeated outpatient visits, and a growing demand for integrated, multidimensional care that addresses not only physical but also psychological and social needs—the core of the biopsychosocial model (Engel, 1977). In the Italian healthcare context, these needs are emphasized by systemic challenges. Long waiting lists frequently lead to delayed diagnoses and treatments (AIOM, 2022). Physicians often find themselves burdened by bureaucratic tasks, detracting from direct patient care (Bellieni, 2024). Prolonged shifts, staff shortages, and inadequate coordination between services contribute to burnout and turnover (Osservatorio FAVO, 2024). Economic factors, including relatively low salaries and limited professional recognition (Eurispes-Enpam, 2024), further exacerbate workforce challenges, while instances of workplace violence—both overt and in the form of “slow violence” through systemic neglect—are increasingly reported (Marini, 2024).

Hospitals, paradoxically, are designed as places of healing yet often become sources of stress and discomfort. Harsh lighting, constant noise, lack of privacy, and sterile aesthetics can heighten anxiety, elevate physiological stress markers such as blood pressure and heart rate, and hinder recovery (Ulrich, 1984; Marcus & Barnes, 1999). As in many human systems, within these challenges also lie opportunities. A growing body of research on healing environments demonstrates that architectural design and integration of natural elements can play a critical role in promoting well-being, accelerating recovery and humanizing care (Ulrich, 1984).

The concept of *healing environments* extends beyond clinical efficacy to create spaces that foster dignity, empathy, and a sense of belonging (Marcus & Barnes, 2014). Within this paradigm, *healing gardens* emerge as an essential component, grounded in the theory of biophilia—humans' innate affinity with nature (Wilson, 1984)—and supported by environmental psychology research showing measurable benefits for patients, caregivers, and healthcare staff. Healing gardens are commonly classified into two overarching categories: *Enabling Gardens*, which prioritize active engagement and accessibility for users with physical or cognitive limitations, and *Restorative Gardens*, which focus on mental restoration and sensory enrichment. Subcategories range from dementia and

memory gardens to horticultural therapy gardens, meditation gardens, and sensory gardens, each tailored to specific therapeutic or experiential needs. This typology underscores the diversity of approaches possible within the healing garden framework, reflecting both functional and symbolic dimensions of design (Sachs, 2017).

The COVID-19 pandemic further amplified awareness of the link between nature and health. Lockdowns and restrictions intensified the public's appreciation for outdoor spaces, and healthcare settings increasingly recognized the value of integrating green areas into patient care, not only for infection-safe social interaction but also for stress reduction and emotional resilience. The pandemic thus catalysed a renewed focus on biophilic design as a core component of healthcare planning (Bahador & Mahmudi Zarandi, 2024).

Against this backdrop, this study addresses the central research question: How can therapeutic gardens in healthcare settings enhance the well-being of patients, caregivers, and healthcare staff, while simultaneously functioning as spaces for pedagogical and experiential learning?

Methods

This research employed a qualitative, multiple-case study design, integrating literature review, qualitative mapping, and in-depth case analysis. The literature review synthesized findings from peer-reviewed studies, meta-analyses, and design guidelines to establish the evidence base for the health and educational benefits of healing gardens. This included seminal works on the restorative effects of natural views in hospitals (Ulrich, 1984), the role of garden design in therapeutic outcomes (Cooper Marcus & Sachs, 2014), and recent empirical studies on biophilic design in clinical contexts (Yin et al., 2022).

A qualitative mapping exercise was conducted to identify therapeutic gardens across Italy, categorized by region and by the primary health conditions addressed. Data sources included scientific publications, institutional reports, and online project documentation. While no single national registry exists, synthesis of available data revealed a heterogeneous distribution, with higher concentrations in regions such as Emilia-Romagna, Lombardy, and Lazio, particularly for oncology, rehabilitation, and neurological conditions. Some regions, such as Veneto and Trentino-Alto Adige, demonstrated thematic specialization — for instance, in rehabilitation and disability-focused gardens — while others, such as Basilicata and Liguria, had comparatively limited provision. From the mapped initiatives, three case studies were selected according to criteria of geographical diversity, varied design approaches, education activities, diversity of patients, and integration within healthcare service delivery. The chosen sites were Giardino della Felicità (Ferrara), Parco Lacugnana (Perugia), and Giardino terapeutico of Policlinico Gemelli (Rome). Data collection combined document analysis — including project descriptions, sustainability reports, and internal evaluations. The analytical framework assessed each garden according to two main dimensions: its typological classification (enabling vs. restorative, with specific subcategories) and its range of experience activities (therapeutic, recreational, pedagogical). Outcomes were grouped into four categories — physical, psychological, social, and pedagogical benefits — for patients, caregivers, and healthcare staff.

Results

The mapping confirmed that therapeutic gardens are unevenly distributed across Italy, with notable regional disparities in access. The prevalence of oncology-related and rehabilitation-focused

gardens reflects broader healthcare priorities yet also signals a potential underdevelopment of gardens dedicated to mental health, paediatric care, or dementia-specific needs.

The classification of Italian examples aligns with the international typology, encompassing both enabling and restorative functions. Enabling gardens in the sample included horticultural therapy gardens designed for rehabilitation, dementia gardens incorporating sensory planting, and accessible demonstration gardens. Restorative gardens focused on contemplative experiences, multi-sensory engagement, and opportunities for psychological respite (Cooper Marcus & Sachs, 2014).

Analysis of documented impacts confirmed multiple benefits. From a physical health perspective, exposure to nature within hospital settings has been linked to reduced cortisol levels and lower blood pressure, alongside shorter post-operative stays — in some cases by approximately 10% — compared to patients without access to green spaces (Ulrich, 1984). Psychological outcomes include mood enhancement, reduced anxiety, and decreased reliance on analgesics, with reductions in pain medication use ranging from 20–30% in certain studies (Ulrich, 1991). Socially, gardens function as hybrid public spaces, fostering interaction among patients, caregivers, and community members, thereby reducing isolation and improving perceived quality of care.

The pedagogical dimension emerged as a distinctive strength of healing gardens, particularly in structured experiential learning programs. Activities such as mindfulness walks, horticultural therapy sessions, narrative medicine workshops, and environmental education initiatives were observed across the case studies. These programs support skill development in patients — for instance, motor coordination and cognitive engagement — and foster soft skills among staff, including empathy, active listening, and interdisciplinary collaboration (Buccini, F. (2024).

The selected case studies exemplify the diversity of therapeutic garden design and its applications within the Italian healthcare context, highlighting both their restorative potential and their pedagogical relevance.

The *Giardino della Felicità* in Ferrara, established in 2018 within a residential facility for elderly individuals, demonstrates how intentional landscape design can foster autonomy, rehabilitation, and community integration. As noted in the facility's project report (Cooperativa Sociale Serena, 2018), the garden integrates sensory pathways, raised cultivation beds, and comfortable seating areas to encourage relaxation and social interaction. A distinctive feature is the *percorso della bicicletta*, inspired by Ferrara's identity as the "city of bicycles," which enables residents to engage in safe, adapted cycling activities that enhance mobility and self-efficacy. Complemented by an outdoor gym and walking paths with bright orange handrails for stability, the design promotes both safety and independence. Over the years, the space has hosted physiotherapy sessions, cooperative meetings, and horticultural workshops, while collaborations with local schools have facilitated intergenerational exchange, aligning with literature on the social benefits of therapeutic landscapes (Marcus & Sachs, 2013; Ulrich, 1999). This case underscores how therapeutic gardens can serve as active hubs for both care and experiential learning.

The *Parco Lacugnana – Area Giochi Sensoriale e di Educazione Civica* in Perugia, inaugurated in 2021, reflects a growing emphasis on inclusivity and civic education in public space design. Developed in collaboration with municipal authorities and autism support associations (Comune di Perugia, 2021), the park offers tactile pathways made from natural materials such as sand, bark, and stone; outdoor musical instruments for auditory exploration; climbing structures to enhance motor

coordination; and shaded rest areas to support sensory regulation. The park's programming integrates interactive civic education modules, where children learn about social rules and environmental stewardship through practical activities, echoing pedagogical approaches to experiential outdoor learning (Fleming & Figueiredo, 2010). Cooperative games facilitate positive interaction between neurodivergent and neurotypical peers, reinforcing the role of nature-based spaces as catalysts for inclusion. By combining play, education, and environmental awareness, Parco Lacugnana illustrates how therapeutic landscapes can extend their impact beyond health into social cohesion and community education.

Giardino Terapeutico at Policlinico Gemelli in Rome, opened in 2020 for oncology patients, integrates medicinal plants, shaded pergolas, water features, and immersive walking paths to create a calming and restorative environment. The hospital's internal documentation (Policlinico Universitario A. Gemelli IRCCS, 2020) emphasizes the *percorso dei sensi*, a barefoot path incorporating natural textures such as smooth stones, pebbles, and grass, designed to stimulate sensory perception and promote mindfulness. Regular mindfulness sessions, supported by evidence on stress reduction in green environments (Ulrich, 1984; Jiang et al., 2018), incorporate breathing exercises and relaxation techniques to support emotional well-being during treatment. Horticultural therapy workshops engage patients in plant cultivation, fostering purpose and agency—elements known to enhance recovery outcomes (Soga et al., 2017). Educational outreach sessions with healthcare professionals further connect the therapeutic benefits of nature to evidence-based practice, reinforcing the garden's role as both a space of healing and an instrument of experiential learning.

Discussion

The findings reinforce the view that healing gardens are not ancillary amenities but integral components of human-centred healthcare environments. Their impact spans physiological, psychological, and social domains, contributing to measurable clinical improvements and enhanced quality of life for diverse user groups. The documented pedagogical benefits — particularly in fostering experiential learning and professional skill development — extend the value proposition of these spaces beyond patient outcomes to encompass staff training and interprofessional collaboration.

Taken together, the three Italian case studies illustrate how therapeutic gardens can be adapted to varied contexts and populations while preserving their core restorative and educational functions. *Giardino della Felicità* in Ferrara emphasizes accessibility, rehabilitation, and intergenerational engagement; *Parco Lacugnana* in Perugia focuses on sensory integration, inclusion, and civic education for children with autism; and *Giardino Terapeutico* at Policlinico Gemelli in Rome addresses the emotional and psychological needs of oncology patients through mindfulness practices and horticultural therapy. Despite these differences, all share a commitment to biophilic design, user-centred accessibility, and the integration of pedagogical elements into therapeutic landscapes. This convergence reflects a broader trend in healthcare design that views green spaces not merely as aesthetic enhancements but as evidence-based, multifunctional tools for promoting recovery, resilience, inclusion, and experiential learning.

These results align with the broader literature on biophilic and evidence-based design, confirming that contact with nature facilitates stress recovery, supports emotional regulation, and enhances interpersonal communication in healthcare contexts. They also intersect with current policy

priorities emphasizing patient-centred care, mental health promotion, and community engagement within healthcare planning.

Inclusion emerges as a particularly relevant theme. By providing universally accessible environments and programming tailored to diverse needs, healing gardens operationalize the principles of equitable care. The Italian case studies demonstrate that such spaces can bridge hospital and community, reduce stigma, and promote social participation for marginalized groups, from older adults with cognitive decline to children with developmental disorders.

However, the uneven geographic distribution of therapeutic gardens across Italy raises questions of equity in access. Strategic investment, supported by robust evidence and cross-sectoral collaboration between healthcare providers, architects, and community organizations, is essential to ensure that these benefits are not limited to regions with greater resources or policy innovation.

Looking ahead, embedding healing gardens into healthcare facility design from the planning stage — rather than as retrofitted additions — could maximize both therapeutic and pedagogical potential. Integrating their use into medical and nursing curricula would further consolidate their role in developing the relational and reflective competencies essential to contemporary healthcare.

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Afterword

Weaving Together Voices, Places, and Futures

On behalf of the working group for the 21st EOE Conference held in Rimini in 2025 and hosted by the University of Bologna, I am delighted to offer this postface to the book of presentation abstracts. The texts gathered in this volume offer more than a record of the EOE Conference: they form a mosaic of perspectives, practices, and reflections that collectively illuminate the evolving landscape of outdoor education in Europe.

If the introduction to this volume highlights the EOE Network as a transnational community of practice – rooted in collaboration, trust, and shared inquiry – the contributions that follow render this identity tangible and vivid. Beyond the richness of the individual papers, several thematic streams run through the proceedings, reflecting the concerns, aspirations, and pedagogical imagination of the contemporary outdoor education community.

A powerful theme is the renewed centrality of *urban outdoor education settings* – a theme explicitly present in the title of the conference itself. Many contributions explore how places close to home, such as streets, parks, coastal areas, schoolyards, and neighborhoods, can become meaningful educational environments. This shift from remote wilderness settings to nearby natural and cultural places, reflects an awareness of the ecological, social, and cultural complexities of urban life, and aligns with the Sustainable Development Goals that frame our collective commitment to more equitable and healthy societies.

Another major theme concerns *inclusion, disability, and access to nature*. Several authors show how outdoor spaces can become sites of care, well-being, and relational support. Their work demonstrates that outdoor education is not only about adventure, but increasingly about participation, dignity, and belonging. The emphasis on inclusive practices resonates deeply in an Europe shaped by inequalities, demographic changes, and the need for compassionate educational responses to urgent social challenges.

Closely connected is the emerging field of *gender, intersectionality, and social justice*. Through feminist and queer perspectives, autoethnographic accounts, and collaborative inquiries, the proceedings reveal a growing commitment to understanding how identities shape experiences of the outdoors. These contributions challenge traditional narratives and invite practitioners and researchers to reimagine outdoor learning as a space of empowerment and transformation.

A further thread running across the volume is the focus on the *body, play, and ecological well-being*. From children's spontaneous exploration to the embodied practices of educators, many papers remind us that learning is always rooted in movement, perception, and sensory engagement with place. This embodied dimension is not an accessory but a foundation for mental health, creativity, and the cultivation of ecological awareness.

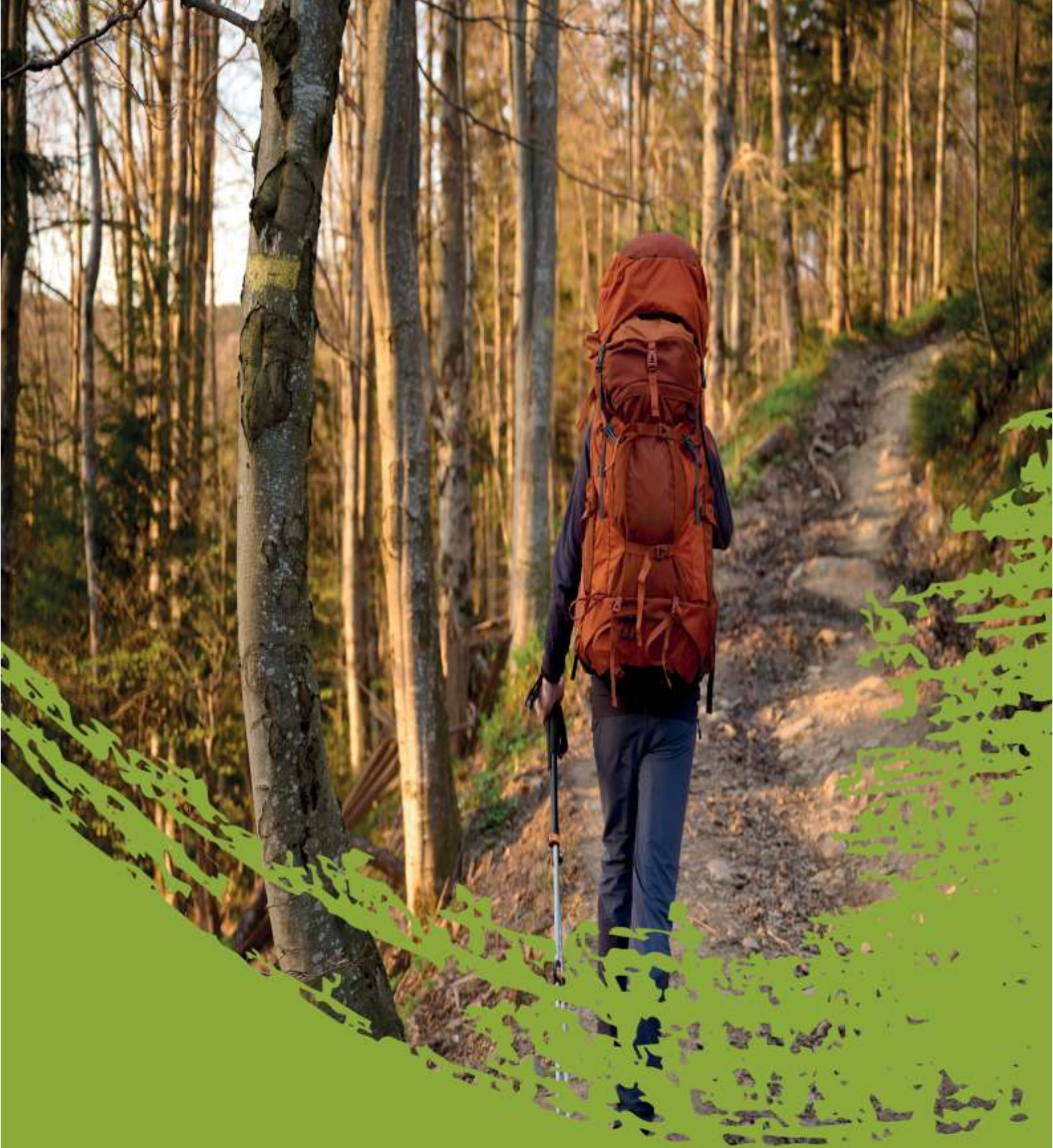
Taken together, the contributions in these proceedings illustrate a field responsive to the urgencies of our time: climate change, migration, technological acceleration, and widening inequalities. They show that outdoor education can be a powerful response to these challenges – not through heroic narratives of adventure, but through everyday practices of attention, care, justice, and co-presence with human and more-than-human worlds.

This volume is therefore both a snapshot and a pathway: a collective map and a shared set of fieldnotes documenting our community's journey. It is a record of what the EOE community has achieved, and an invitation to continue imagining, researching, and practicing new forms of outdoor education across Europe and beyond. May these pages inspire readers to cultivate connections, question assumptions, and embrace practices of care, creativity, slowness, and attentive listening in

place, as we work to build communities and imagine futures that are more just, inclusive, and sustainable.

Hosting the conference for the first time in a Mediterranean context such as Italy adds a unique layer to these reflections. Rimini, with its rich history and vibrant urban and coastal landscapes, offered a compelling setting for exploring outdoor education and learning within cultural, historical, and climatic specificities. The Western North Mediterranean – Adriatic perspective that emerges from these proceedings is neither homogeneous nor fully defined; rather, it opens a fertile space for new questions, new collaborations, and new pedagogical insights.

More importantly, we wish to emphasise that if the EOE community aims to cultivate new perspectives, it is essential to engage with new contexts, such as the Mediterranean, to foster innovative viewpoints.



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