



Seeds to Blooms:

A Report on Nature-based Early Childhood Education at Antioch University

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About This Report

This report was commissioned by Dr. Ellen Doris, director of the nature-based early childhood program at Antioch University New England. The purpose is to describe the first ten years of the program's development and to feature the inspiring stories of some of its participants. Dr. Charles drew on her decades of experience as a scholar and organizational executive for programs and organizations focused on children, education, communities and the environment. Considered one of the leaders of the worldwide movement to reconnect children with nature, she conducted more than 15 interviews with graduates and faculty as part of the process of developing this report. The resulting narrative is intended to help inform plans for the continued growth of nature-based early childhood education at Antioch University. It is a companion piece to PEER Associates' Summary of Evaluation Findings: Antioch University New England's Nature-based Early Childhood Initiative, tinyurl.com/nbeceval PEERassociates.net/productsarchive.



Ellen Doris is a member of the Education Department Faculty at Antioch University New England. Her doctorate in Learning and Teaching and master's degree in Teaching, Curriculum and Learning Environments are from the Harvard Graduate School of Education; her bachelor's degree is from the College of Agriculture and Life Sciences at Cornell University. Ellen has encouraged nature-study and outdoor learning while serving as an early childhood and elementary school teacher and administrator; museum and outdoor educator; and consultant. She is the author of *Doing What Scientists Do: Children Learn to Investigate Their World*, the *Real Kids/Real Science* series, and *Life at the Top: Discoveries in a Tropical Forest Canopy*.



Cheryl Charles, Ph.D., is an innovator, author, organizational executive and educator. Throughout her career, Cheryl has focused on the well-being of children, families, communities and the environment that supports us all. Cheryl is the Co-Founder, President and CEO Emerita of the Children & Nature Network (C&NN), www.childrenandnature.org. She currently is Research Scholar and Executive Director of the Nature-based Leadership Institute at Antioch University New England, an elected local school board member, a member of the Steering Committee for the International Union for the Conservation of Nature's Commission on Education and Communication and international Co-Chair of IUCN's #NatureForAll, www.natureforall.global.

Introduction and Early History



"We look forward to seeing nature-based early childhood programs thriving in all the United States and beyond with graduates who have been trained at Antioch University."
David Sobel, Professor Emeritus,
Antioch University New England

The past 15 years have seen an increased awareness of changes in childhood. Author Richard Louv gave voice to one of the most visible of those changes in his landmark book, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* (2005, 2008) when he described the disconnect of children from nature in their everyday lives. Many other people have worried about children's increasingly sedentary and nature-deprived lives for decades, and even longer. Antioch University Professor Emeritus David Sobel is among those who have long addressed the problem with solutions. Throughout his career, he has inspired and taught others how to create educational experiences that connect people of all ages, and especially children, with their surroundings in meaningful, even joyful, ways—culturally as well as ecologically. This document reports on one part of David's legacy: Antioch University's Nature-based Early Childhood program and related initiatives.

It was decades ago that David began writing and teaching about what he and others called place-based education. In *Place-Based Education: Connecting Classrooms and Communities* (2004, 2005), David says:

Place-based education is the process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science and other subjects across the curriculum. Emphasizing hands-on, real-world learning experiences, this approach to education increases academic achievement, helps students develop stronger ties to their community, enhances students' appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens.

In this definition, David recognizes the importance of connecting learners with all the dimensions of their community-based surroundings, including the cultures as well as all of their ecological, nature-based characteristics. Early in his work as a professor at Antioch University New England, David and his colleagues put place-based teaching and learning at the heart of the programs, courses, and degrees offered through the Education Department. The approach was always a blend of head, heart and hands. Students were outdoors, in nature, and embedded with the human-made artifacts of the cultural surroundings. They learned about place by being a part of all the living systems, cultural and nature-based, that surrounded them. They approached their studies with a sense of adventure and exploration, scholarship and humor, art and science. Drama and story helped make sense of all the connections. The learning process was imbued with integrity, curiosity, play and purpose.

As early as the 1990s, David had an explicit worry about what was being lost. He wrote *Beyond Ecophobia: Reclaiming the Heart in Nature Education* in 1996. His was among the warnings, too often unheeded, and for too long. In an often-quoted statement from the

book, he says, “What's important is that children have an opportunity to bond with the natural world, to learn to love it, before being asked to heal its wounds.”

Decades passed, and Antioch’s reputation for leadership in place-based education grew. Stimulated by Louv’s *Last Child in the Woods* and his co-founding of the Children & Nature Network in 2006, a movement to reconnect children and nature began to grow in visibility and momentum. Many voices came together to address the growing disconnect between children and the nearby environments where they lived, learned and played. While place-based education remained centrally important at Antioch University, and is a unifying and large concept, there was such a dramatic decline in human contact with nature it became evident there was a compelling need to put nature more boldly and explicitly into educators’ vocabulary and experience. By 2008, David wrote *Childhood and Nature: Design Principles for Educators*. These design principles are framed within the context of place-based education, however, the title is a form of wake-up call. We need to reconnect children with nature in their growing years, and there are powerful, accessible, proven ways to do that which David makes clear. He also demonstrates how these approaches make it possible to weave nature-based experiences throughout the school curriculum, in all major subject and skill areas. As he says about the book, “The pressures of test preparation, standards, and curriculum frameworks often reduce the study of nature and the environment to a set of facts and general concepts. However, as *Childhood and Nature* demonstrates, linking curriculum with an engagement in the real world not only provides students with the thinking skills needed for whatever test comes their way, but also helps them grow into responsible citizens and stewards of the earth.”

A few more years passed, and David was ready to try something new. He could see a variety of converging forces, and he had first-hand experience with Antioch University’s expertise in complementary areas. He knew the time was right for a new approach. This approach would build on the successful programs and initiatives already well underway within Antioch’s Education and other Departments. It would create an innovative synergy that would serve a combination of Antioch’s traditional interested audiences as well as new groups of people. He also knew that it would need a variety of elements in order to not only attract people to participate, but even to let them know that it was available. In an unusual sense, that meant David needed to think like a marketer, not the most natural fit for a university professor—even one as creative as him.

He and his colleagues had multiple goals, at least from this observer’s perspective:

- **Big goal:** Connect children with nature for their own optimal development while inspiring them to grow up to care for the Earth.
- **Intermediate goal:** Raise recognition of the important role that teachers and other educators play in connecting children with nature.

- **Specific objectives:** Provide practical and accessible opportunities for educators to get acquainted with the concepts, develop their skills, and incorporate them effectively in their programs.

How to achieve all of this? By developing and offering introductory workshops and conferences, like In Bloom and later Inside-Outside; the Nature-based Early Childhood Certificate Program; fellowships, internships, and graduate degree programs. **See the sidebar beginning on page 10 in this document for a detailed description from David Sobel about these elements and how they evolved.**

David's thinking about all of these from an organizational and evolutionary perspective coalesced in 2011. Education Department colleagues and others helped it to materialize. The first nature-based early childhood workshop and conference was offered at Antioch in Keene in 2012. That was a great success, followed by another in 2013. By 2014, these carefully cultivated seeds became "In Bloom," a series of one-day workshops offered once a year in Keene and then in other locations. The workshops were relatively affordable, thanks to support from the George B. Storer Foundation. The workshops helped create a buzz of interest in nature-based early childhood approaches to teaching and learning. Educators proved thirsty for more.

Simultaneous with designing and offering these early workshops to help raise awareness and nourish interest, David asked educator Patti Bailie to help him think through the core elements of what would become Antioch's Nature-based Early Childhood certificate. They both recognized there were core courses that would be a requirement for everyone who wanted such certification. The courses needed to provide a mix of philosophy, pedagogy and practice. They needed to cover the foundational understandings and skills that would serve anyone who wanted to be in some form a nature-based early childhood educator. They knew the people who would enroll for such a certificate would have a range of interests. Some were founders of their own private preschools; some were kindergarten teachers in public schools; others were educators serving children from low-income communities in nature-deprived neighborhoods. Their needs were diverse. They shared a common interest in serving children's health and well-being. Many also recognized that connecting children with nature in their early years would contribute in positive ways to their growing up to care for the Earth.

Much of what was needed was already offered as coursework within Antioch University New England's Education Department. However, there were some gaps, one of which was

a business course that was initially designed to help those who wanted to found a nature-based preschool. Another was a course in risk management, a huge interest and concern for nearly everyone. Intention and thoughtfulness are key to successful nature-based outdoor experiences for young children and this course models both. A course on working with families and community as well as one on nature-based early childhood curriculum were also developed. These four courses were required; others could be taken as electives. Here is where one of Antioch's strengths became a great asset: participants could also self-design a course or program of study.

Antioch's flexibility and openness to students' design of approaches that would best serve their needs is a key attribute of the program's success. That flexibility is supported, however, by the deep expertise and personalized approach of the faculty. The combination of in-depth sharing of information, insights and guided experiences throughout the coursework with students' often self-designed practical projects made for a meaningful and highly relevant certificate program. Other strengths include Antioch's commitment to supporting professional educators who are already working full-time by offering the essential courses on weekends and as week-long experiences. Another strength is the focus on building communities of practice, where those participating become a circle of support for one another. Over and over, in interviews with graduates, people spoke of the value of the connections made not only with faculty, but with other participants. Those connections frequently endure, enriching the lives of those involved both personally and professionally. All of these Antioch strengths were articulated by those who were interviewed for this report, and were also identified in PEER Associates' *Summary of Evaluation Findings: Antioch University New England's Nature-based Early Childhood Initiative*.

It is interesting that many people took the nature-based early childhood certificate program as a stand-alone experience. Others combined it with their master's work. Some already had earned a master's or doctorate. Others created a master's program for themselves with nature-based early education at the core. Each of these paths proved useful and important for a variety of participants.

It should be noted that the nature-based early childhood initiative at Antioch University owes much, over time, to the George B. Storer Foundation. Funding enabled an innovative array of courses to be developed, piloted, and added to Antioch University New England's permanent offerings, each with a low-residency design that provides access to working professionals. In addition, the Foundation supported the creation of a conference series, fellowship program, films, books, and an influential professional network. The

transformational role that Antioch University plays in the field of nature-based early childhood education has been encouraged and enhanced from the outset by the vision and commitment of the George B. Storer Foundation, with additional much-appreciated support from The Bay and Paul Foundations.

What follows next in this report are some profiles of graduates. From their stories, you can see the diversity of needs and interests they demonstrate. You can see how each is making a positive difference in their own ways. Highlighted within some of the profiles are website addresses for sites associated with these graduates, providing examples of the varied approaches to creating and providing nature-based experiences for children. There are also profiles of some of the faculty and staff, providing a glimpse of their own pathways to helping create and support nature-based education at Antioch University New England.

Antioch's faculty, from core to adjunct to affiliate, are outstanding. Among those who have made the nature-based early childhood certificate program at Antioch so compelling, effective and important, beyond David Sobel who inspired and co-developed it in the first place, are Ellen Doris, now Director of the program at Antioch; Patti Bailie who helped in the early years to establish its basic structure and contents with David; Anne Stires who developed and teaches the risk management course as well as the course on teaching outdoors in winter, and now also teaches the business planning course; Ken Finch and Rachel Larimore, who both have taught the business course; and Eliza Minnucci who now teaches the curriculum course originally developed by Patti Bailie. Others on the faculty or associated with the program who teach electives or provide other kinds of support are Amy Butler, Susan Dreyer Leon, Paul Bocko, Laura Thomas, Liza Lowe, Janet Altobello, Carla Comey, Nancy Striniste, Carol Renzleman, Emily D'Arcangelo and Peg Smeltz. Throughout the process of creating the certificate program and related courses, former Education Department Chair and widely-respected scholar of Waldorf educational approaches, Torin Finser, was and is a great ally and resource. Current chair Susan Dreyer Leon continues with strong advocacy and support, and complementary coursework in areas like mindfulness.

Leading the way to expand to other Antioch campuses, the nature-based early childhood education initiative was embraced by Marianne D'Emidio-Caston, former chair of the Education Department at Antioch University Santa Barbara. Her support and collaborative approach allowed Antioch University Santa Barbara students access to nature-based early childhood courses, while *In Bloom in Santa Barbara* inspired and engaged area educators.

Graduates of Antioch's nature-based early childhood education program are making contributions locally, regionally, nationally and, to a growing extent, internationally. It is

clear that the movement is growing, and that Antioch's role is unique. Antioch is arguably the single best institution of higher learning where people with an interest in nature-based early childhood education can get advanced degrees, certificates, or both. Antioch's expertise extends beyond the early childhood years, and the demand for nature-based approaches to kindergarten through high school education is growing. For example, Ellen Doris and colleagues developed the Inside-Outside conferences for elementary school educators, helping to bring the nature-based focus to educators of older age children. Now the Inside-Outside network, facilitated by Liza Lowe, helps provide professional support to educators of a wide range of children and youth.

For more detail about specific attributes of Antioch's nature-based initiative as seen through the eyes and experiences of graduates, read the *Summary of Evaluation Findings: Antioch University New England Nature-based Early Childhood Initiative* developed by PEER Associates.

History of the Nature-based Early Childhood Certificate program at Antioch University New England: The First 10 Years by David Sobel



The idea for the Nature-based Early Childhood (NbEC) program at Antioch New England emerged in 2011 out of the soil of previous innovations at Antioch New England and in response to an interweaving of international phenomena. The interweaving phenomena were the flourishing forest kindergarten movement in Europe over the previous three decades; the worldwide academification, indoorification, and digitalization of young children's lives; and my observation that Antioch alumni were finding jobs in the small number of forest kindergarten-like programs in the United States. There was clearly an incipient outdoors preschool movement in the United States but no higher education, professional development opportunities for training. In the Education Department, we had a long history of training graduate students in progressive elementary education, place- and problem-based education, environmental education and Waldorf education. A new program at the intersection of all these initiatives, with a focus on early childhood, made sense. Ergo, the Nature-based Early Childhood Certificate program.

Early on, I conceived of five phases of evolution for the program. They were:

- a. Introductory Workshops:** to begin to offer mini-courses and workshops that would allow us to claim the nature-based early childhood space as the first higher education institution in the country with this focus.
- b. Certificate Program:** to design a year-long, 12-15 credit set of intensive courses (weekends and week-long) to make the training available for working adults around the country. And to start a Fellowship program to have graduate students document the "naturalization" of traditional early childhood programs.
- c. In Bloom in Rural and Urban Settings:** to take the Keene workshop and conference offerings on the road around New England and across the country
- d. Master's Programs:** to embed the certificate program within numerous M.Ed. options for students wishing to pursue a graduate degree.
- e. University-Wide:** to expand the offerings to other Antioch University campuses.

In actuality, we have pretty much followed this trajectory, with some small variations, and the program is thriving in 2021 as illustrated by a recent comment from Brooke Larm, a graduate of the program.

I continue to rave about my incredible experience with Antioch, despite me not really having space at times to come up for air while I was living it to appreciate it. I look back now and my heart swells. I dreamed of the program for two years and still at times can't believe I was able to make it happen. Thanks for building such a beautiful program that has forever impacted and changed me in such a big way!

This is how we got here.

a. Inception and Introductory Workshops. In the beginning, I reached out to the emergent leaders in the field around the country and asked them to help me create a program. They included:

- Patti Bailie who had just finished the first doctoral dissertation on the topic and had been director of the Schlitz Audubon Nature Preschool near Milwaukee;
- Ken Finch, an expert in nature preschools, Audubon Society state director in Minnesota and a business consultant on starting programs; and
- Anne Stires, the director of the Juniper Hill School in Alna, Maine, one of the first nature preschools in Maine.

I recruited them to offer short courses on Nature-based Early Childhood Curriculum, Business Planning and Risk Management.

We offered our first Nature Preschools and Forest Kindergartens one-day conference in 2012 and a participant commented, *"I'm so excited Antioch New England is offering this event—this is exactly what I've been looking for and I need."* I knew we were on the right track.

b. Certificate Program. I roped Patti Bailie in as a co-conspirator. We converted a set of stand-alone courses into a sequence of required and elective courses that have remained the core of the program for the past decade. The emphasis was on weekend courses and three short, intensive week-long courses. This allowed working adults from around the country to participate. In the early years we attracted students from Chicago, Milwaukee, Baltimore, Cleveland, New Haven, Boston, New Orleans, northern Alabama, Ontario. Patti brought her experience of directing the exemplary Schlitz Nature Center program and I drew on my past experience of new program development. We received funding from an internal faculty innovation grant program and from the George B. Storer Foundation in

Jackson, WY that had a specific focus on nature-based early childhood. This grant funding allowed us to provide extensive scholarship and fellowship funding to underpaid early childhood educators. This Fellowship program provided \$5000 grants to students in exchange for writing short articles about how they were naturalizing the programs where they worked or did internships.

c. In Bloom in Rural and Urban Sites. After early success with a conference in Keene for two years, we decided to expand our conference offerings to locations more accessible for early childhood educators. We added Boston in 2014, and then New Haven, CT, Burlington, VT and Santa Barbara, CA in 2015. Each of these conferences started to attract more than 100 participants who raved about the experience. We tried to break the traditional conference mode. We insisted that workshops take place outside, in the natural environment and be active, messy and hands-on. We wrote with charcoal paint, chanted and danced, built reed shelters, designed nature play areas, made teas with local plant materials, practiced storytelling techniques based on found materials. Participants were thrilled--*"Best professional development experience ever!"* Another recent participant said, *"Continue In Bloom forever! My highlight for the school year. It always inspires me and keeps my internal fire burning."*

In total we have now conducted 32 conferences in Keene, New Haven, Boston, Burlington, Kittery, ME, Westchester and Long Island, NY (in conjunction with the Jewish Education Project), Brattleboro, VT, Asheville, NC, and Jackson, WY (in conjunction with Teton Science Schools). Program faculty have become featured speakers at conferences from Miami to Victoria, BC to Indiana and at the annual national Natural Start conference. These events have helped establish nature-based approaches as a viable alternative to conventional, indoors early childhood programs.

d. Master's Programs. After a few years, Patti Bailie got lured away to the University of Maine and I recruited Ellen Doris to join me as co-director of the program. In my retirement, she continues to keep the home fires burning. Under her guidance, we have cemented the certificate program within a variety of opportunities at Antioch New England.

Many students got involved in the certificate program courses, and realized they were experiencing coursework different from their prior experiences. Courses were active, often outside, incredibly practical and involved solving real problems. Students were learning how to identify mushrooms and bugs and understand how to use them to develop literacy and math skills, learning how to create budgets and approach donors, writing the parent handbook that their program had needed for the past two years, learning how to assess risk and work with children safely outside during winter, learning how to advise parents on acquiring appropriate outdoor gear, and writing protocols that satisfied the exacting

early childhood office compliance officers. This was so useful that they wanted to embed their certificate programs in fuller degree programs. Ellen connected the certificate program to our Elementary and Early Childhood M. Ed program and created a separate track for students in our Experienced Educators Foundations of Education Master's program as well. Now, more of our students are getting Master's degrees with a focus on nature-based early childhood and this leads to a growing validation of the importance of this approach.

During this phase, program faculty and students have added to the literature and media on nature-based early childhood approaches. Many of the early program faculty contributed to *Nature Preschool and Forest Kindergartens: The Handbook for Outdoor Learning* published by Redleaf Press in 2015. Work done by fellowship recipients from 2014 through 2018 became the heart of *The Sky Above and the Mud Below: Lessons from Nature Preschools and Forest Kindergartens* published in 2020. Eliza Minnucci, an early student in the program who now teaches the Nature-based Early Childhood Curriculum course, published, with Meghan Teachout, the elegant and eminently useful *The Forest Days Handbook: Program Design for School Days Outside* published by Green Writers Press in 2018. Program faculty have developed two compelling movies titled *The Best Day Ever: Forest Days in Vermont Kindergartens* and *Turning School Inside Out: Nature-based Education in a New Hampshire K-8 School* which have been shown on many public television networks. Graduates from the program are directing and working at centers in more than two dozen states.

e. University-wide. In 2015, we transplanted the In Bloom conference to the Antioch University campus in Santa Barbara and we actively began planning to initiate a west coast version of the program. For the first year or two, we sent New England faculty to California to co-teach and train local Santa Barbara faculty. We also distributed Fellowships to California students and we enjoyed working with students who were working often with predominantly Latinx students and teachers in inner city settings. Two of these students' work is represented in *The Sky Above and the Mud Below*. Currently, the university is exploring moving this program to the Los Angeles campus because of the active nature-based early childhood scene in the greater LA metropolitan area.

One alumni of the program, Megan Gessler, has been an active Midwest advocate and started the Northern Illinois Nature Preschool Association. She currently directs the nature preschool at the Morton Arboretum in suburban Chicago and she has interested her organization in hosting a Chicago-area version of the NbEC program. Negotiations are underway.

The coronavirus pandemic has had an interesting silver lining for the movement in that many preschools and elementary schools moved programming outside to limit the

transmissibility of the virus. As a result, there's now even greater interest in professional training for working outdoors with young children. The NbEC program faculty had long been committed to delivering course work face-to-face and outdoors. We believed in practicing what we preached outside in the real world. But, to maintain program delivery during the pandemic, it was necessary to offer our courses in an on-line format. As a result, we are now able to serve a much wider geographic range of students and students who couldn't afford to travel to take advantage of our courses. In the future, we will offer a mix of in-person and on-line courses.

We look forward to seeing nature-based early childhood programs thriving in all the United States and beyond with graduates who have been trained at Antioch University.

In summary, the Nature-based Early Childhood Certificate program was the right idea at the right time. We developed the In Bloom conference series and the program at the right moment to serve the professional community and to provide examples of high-quality, ends-focused training. The program has contributed to the growth of the national community and has provided leadership across the country. Faculty have also been involved in a parallel series of research studies which have helped to articulate the academic, physical, environmental and socio-emotional benefits to children of nature-based approaches.

Graduate Profiles

It was a pleasure interviewing a variety of people for this report. Several are graduates of Antioch's nature-based certificate program, others earned their master's degree in nature-based early childhood or related areas of study, and some earned both a certificate and an advanced degree in the program. They are dispersed geographically. All serve children in their early childhood years, or help prepare educators who in turn serve those children. The children they serve are diverse as well, from a range of incomes, family backgrounds, geographic regions, and cultural experiences. Each was asked to talk about themselves, not an easy or familiar approach for most of them, since all of them are oriented to serve others rather than focus on themselves. They told their stories—at least the part of their stories that led them to nature-based early childhood education. They talked about their work, Antioch's influence, and specifically about the nature-based early childhood program.

Themes emerged from these interviews. Most, if not all, talked about their experiences outdoors in nature as children having a profound and positive impact on their lives. Those experiences led directly to their work as professionals in the field. You will read their anecdotes about the powerful positive benefits of nature-based experiences for **all** children, including those who learn differently and have a variety of challenges in their lives. You will learn about how COVID-19 added momentum to a school's efforts to serve their children's educational needs safely, joyfully, and effectively in a forest classroom. You will read about more than one graduate's incorporation of language and experiences from diverse cultures within their teaching practice. You will see a theme of social justice, and equitable access for all children, echoed throughout. Some speak from the perspective of private preschools, others from their experience with public programs at places like parks and nature centers, others directly from public schools.

Each story provides insights that are applicable to other settings. Everything they describe is within reach of most, if not all, of us. Every story illustrates a path to making a positive difference by connecting children with nature in their everyday lives.

Alicia Jimenez



“My heart is with the children, and working at Storyteller is a way to serve the children and their families. Storyteller Children’s Center is a kind of model for others. Families have different talents and challenges in their lives. Through stories combined with nature, the children can be happy and discover a sense of wonder. When they are in nature, I see the children smiling, climbing, getting muddy and enjoying playing. It helps them heal the challenges they have. Connecting us all with nature connects us with our community. Adding art, music and dance lets us all add our own cultural essence to the process of learning.”



Alicia Jimenez was born in Mexico. She remembers her grandfather taking her and her brothers to the market to buy bread in Mexico City. He gave them the money they needed and taught them how to pay for the groceries. She remembers well that he taught them through their direct experience, a lesson she has brought to all of her teaching of children and others. When someone asks her about her philosophy of teaching, she remembers learning numbers through the simple practice of using them for something real in her life.

She began teaching others at a young age, beginning with her own brothers and sisters. As a teenager, she was teaching groups of children. Then she and her family moved from Mexico to the United States. Because she continued to show her affinity for teaching, people would encourage her to apply for a teaching credential. In her words, "In those years I was undocumented, so I could not become a teacher in the United States." She started taking English classes and worked as a caregiver. She took classes in safety and health care to learn more about nutrition. She took one class a semester for a long time before she earned her college degree because she was also working full-time as a housekeeper and caregiver. Then the person she was caring for passed away. Some time passed and she was able to start work as an assistant teacher with preschool children.

As a preschool teacher, she began to rediscover her passion for teaching and supporting children. She questioned why the children were indoors sitting down for long periods of time. She knew she enjoyed being outdoors, and felt it would be good for the children to be outdoors as well. She knew some farmers and so asked them to help her grow some vegetables and fruits with the children in a garden. Her focus has always been on the well-being of the children. And she knew she needed to continue her formal education. She finished her associates degree and continued her studies. She earned her bachelors' degree, and she continued learning. She learned about Reggio Emilia and Montessori. She was always interested in nature, and also interested in storytelling. The combination of storytelling, nature and art is at much of the heart of her teaching style.

One day she was visiting Storyteller Children's Center, www.storytellercenter.org, in Santa Barbara, California and saw toddlers in diapers playing with water, and others enjoying the grass and playing with sticks. She knew she would like to work there. Now, she has been there for almost 14 years. Through the years, Alicia observed repeatedly that children's behaviors improve when they spend more time in nature. They cooperate with each other often, they enjoy watching the sky through the tree branches, and they feel calmer. They become aware of sounds, smells and textures just by being in natural spaces. Overall, she observed the benefits of nature in the children's well-being.

Eager to learn, and to continue her skills as a teacher, she found her way to Antioch University Santa Barbara. Ultimately she earned her master's degree. At Antioch, she learned more about the possibilities within teaching. She met many people who helped her be even more mindful than she already was about how best to teach children. She says, "Antioch helped me think out of the box." She saw a forest kindergarten class in Santa Barbara and noticed that there were not children who looked like her among the students. She became a sponge to learn as much as she could about the principles for forest kindergartens so she could offer such experiences for the low-income children, many of Hispanic backgrounds, in the preschool where she teaches. She was inspired by Antioch's commitment to social justice. Antioch helped her recognize she was not alone, and supported her ideas for working collaboratively and respectfully. She was well aware that the parents of the

children in the preschool where she teaches often are working two jobs, many are working in the fields doing things like picking strawberries. It is hard work, literally back-bending work. She knew she needed to be sensitive to cultural perceptions of some of what she was proposing. She also knew that integrating cultural traditions would include love and respect for nature, and this would benefit the children and families she was serving.

Alicia Jimenez is clearly a dedicated and inspiring professional early childhood educator. Her work continues, with these few examples of her many inspirational accomplishments:

- Working for decades to earn undergraduate and graduate degrees in order to be an early childhood educator;
- Starting young, and doing what she could to serve and teach others, even when she didn't have all the formal credentials she would later achieve;
- Enlivening her teaching with a love for nature and culture, benefiting the children she serves, their families, and whole communities;
- Collaborating with her colleagues to create and sustain a successful preschool for low-income children, many of whom are from immigrant families, honoring the nature-based and cultural roots from their homelands in the process;
- Participating as a speaker at the Children & Nature Network's 2012 pre-conference summit on "All Children Need Nature: Equity and Action";
- Participating in David Sobel's nature-based fellowship program, including writing contributions to his book, *The Sky Above and the Mud Below*;
- Conducting workshops and speaking at a variety of programs and conferences to inspire others to provide nature-based experiences in culturally-relevant ways for children of diverse backgrounds; and
- Serving as a mentor to incoming teachers at Storyteller Children's Center, sharing her experience and expertise to support them in growing and developing professionally.

Brooke Larm



"When we were living in Germany, I was a mom who dropped her child off for their first preschool experience and I was not able to speak the language very well. It was a struggle, I would miss things. I would have to have the preschool teacher speak slowly to me and explain things to me. She had to work harder for me. So when I receive children into our program who don't speak English as their first language, I know how it feels."



It was 2004. Brooke Larm had just graduated with her undergraduate degree in education. She looked forward to teaching. There was a recession. It seemed like a hundred or so people applied for every teaching job that attracted her interest. She was a newly married woman, having gotten married a year out of college, and could be flexible, although teaching was really what she wanted to be doing. Her husband surprised her with the news that he was being offered a job as a branch manager for an automotive parts facility in Mexico. He asked her if she wanted to move to Mexico. Her first thought was, “No! I want to teach.” This job wasn’t around the corner, but in another country where English wasn’t spoken as the first language. There were so many decisions to make for this young graduate and young married couple! The more they thought about it, and considered the variety of factors involved, they decided, “This could be a really great time to have this experience!” And so they moved to Mexico.

When they arrived, Brooke started teaching English in various schools, so she was able to start teaching—just not teaching what or where she thought. One was a small private Catholic school. Another was in an inner city school with limited resources. It didn’t take her long to say to herself, “Okay, I love school and learning, so why not add a Spanish certification to my teaching certificate?”

So she learned to speak Spanish, and got the certification to be able to teach it. Thinking about it, Brooke recognizes that she has always had an interest in different cultures, food and language. Added to that, she and her husband both love to travel. They returned home to Michigan after their adventures in Mexico, and then he was invited to go work in Germany. They ended up living there for five years. Their son was born while they were in Germany, and Brooke taught Spanish at an international school there. She was looking for work, and the International School provided the opportunity. She had the qualifications. They wanted her to teach eighth and ninth grade, which, in her words, “was a good lesson in knowing I definitely like preschool.” While she has a particular passion for working with preschoolers and considers that her niche, she is adept at working with all ages. Her current role as Educational Specialist has her working with toddlers through adults.

When they returned to the US from Germany, and she began doing the research to develop the preschool program she would be teaching, she knew it needed to include a recognition and appreciation for cultural diversity, and languages too. In her area of Michigan, there are quite a few international families, and about 10% to 15% of the community’s children speak languages other than English at home. She quickly made it a foundation of the preschool’s guiding philosophy to make it clear they were there for **all** children. In her

words, she wanted parents to know, “I am here for you. We want to make sure that we're celebrating your culture and language in our program, and that we're learning from you, just as your child is learning from this environment and from us.” Brooke describes it as a reciprocal sort of relationship that they emphasize. She attributes that philosophy and appreciation to her experiences living and traveling in diverse cultural settings.

Brooke is currently Educational Specialist at Bowers School Farm (www.schoolfarm.org) and Johnson Nature Center (www.johnsonnaturecenter.org), owned and operated by Bloomfield Hills Schools in Michigan. Several current areas of focus include integrating nature-based learning in their developmental kindergarten program; shifting to more in-depth, place-based learning experiences for students; and building early childhood education programs for the community. Brooke’s love of language, culture, and young children are models for others. Combine that with her commitment to nature-based teaching and learning, and her work is exemplary. Brooke is a problem-loving innovator. Here are just a few examples:

- Brooke created a way to apply her experiences in Mexico to certification as a teacher of Spanish;
- She never lets a new setting overwhelm her, but turns it into a way to learn and help others, not just herself;
- Brooke succeeded in having her work as a graduate of Antioch's Nature-based Early Childhood Certificate program serve to qualify as one of her two concentrations when she earned her Master's in Teaching and Curriculum in 2020 from Michigan State University, with the other concentration in K-12 administration;
- Brooke is a perpetual learner, letting those learning experiences inform and guide her design and practice of serving as a preschool teacher and mentor;
- Brooke has successfully worked in informal education, and now is bringing her experiences and insights to public schools, where it is sorely needed;
- Brooke’s unique blend of nature-based learning is enriched by her respect for different ways of knowing, speaking, and living through diverse cultures and environment; and
- Brooke is a respectful weaver of diverse experiences. One small example is inviting her preschoolers to share the names of different animals in their first languages, from Korean to Lithuanian to Spanish and more. Everyone learns, and is enriched in the process.



Hannah
French

"I could sit in a staff meeting and say, 'you have to take your students outside, it's amazing,' but unless I am doing it and the positive effects are tangible, it won't be easy for others. We have a lot of staff members who are already on board with this idea, but for anyone who's on the fence, unless they see it happening and see it working well and see those positive effects like the joy in the students and their excitement about learning, it's hard for them to get there. Getting these results has been a huge factor in inspiring other teachers at our school. I say to the teachers who are hesitant, 'you don't have to be an outdoor person to start teaching outdoors in nature. You can start, little by little. Go out for a little bit of math. Instead of the playground, go into the woods.' It just grows from there."

Hannah French moved quickly from being an undergraduate at University of Massachusetts Amherst to being a nature-based educator. Although the path has been relatively short, there have been some obstacles along the way. While an undergraduate, she found herself gravitating toward teaching roles. During the summer she worked at an environmental education center in Amherst where she helped with homeschool programming and taught at summer camp. It was at that nature camp that the director asked her if she had ever thought about having a classroom. She says it clicked for her that she could be a teacher and could work in a school where she could get kids outside learning about and connecting with the natural world. She thought, “That would be everything I love, all in one.”

As a result, as early as her senior year at UMass, she started looking at graduate programs. She knew she would need a master's degree and certification since her undergraduate degree was in environmental science and biology. She had no education coursework.

She says, “I went to Antioch very purposefully. It really seemed like a place where all of my different experiences could be utilized and would be honored.” She graduated in June of 2015 and immediately started her graduate work at Antioch. She thinks if she had not started immediately, she would likely have been hired at an environmental center of some kind and lost her momentum toward a teaching degree. She is glad she applied and started her work on her master's degree when she did.

She was accepted into the integrated learning program in elementary education, with a concentration in science and environmental education. Her student teaching internships were in a public school classroom and an environmental education center, and she completed her coursework in the winter of 2016. She took her Massachusetts teacher licensure tests and went to work as an *au pair* in Italy while finishing an independent study. When she returned to the U.S. in the summer of 2017, she had completed her master's in elementary education and returned for another season of work at a summer nature camp.

Here is a point where some obstacles arose. She found that her lack of direct teaching experience in a school was limiting her employability. She decided to take a job as a paraprofessional in a large public elementary school with seven or eight classrooms at each grade level. She says, “I think that's something about the teaching profession. Even if you have a master's degree, even if you've checked all the boxes, if you don't have a lot of experience in a school, it can be really tricky to find a job.” So she purposefully took the job as a paraprofessional for a year, even though she had a master's degree in elementary education. She knew this would be a way not only to gain experience, but to see a variety of classrooms and situations that would enrich her skills and understanding overall.

With that on her resume, she started looking for teaching jobs. She interviewed for a position at Rowe Elementary School, a small school in a small community in the hills of western Massachusetts. She walked into this small school in the early morning and talked about her love of outdoor teaching, all she had learned at Antioch, and why she was ready for a position like this. Amazingly, she got a phone call within two hours to let her know that the job was hers.

Now she is starting her fourth year at Rowe Elementary School (www.roweschool.org). She teaches fourth grade and a mixed age third and fourth grade classroom. It is a unique situation in many ways, with a total of 70 students in grades pre-K through sixth. The school is the heart of the community, characteristic of many villages and towns in the rural areas of the northeast United States. Some former students come back to live and teach in the community. Remarkably, it is a school district in its own right, though it is part of a larger supervisory union with a shared superintendent, the North Berkshire School Union. At Rowe Elementary, there is a full-time principal. The head teacher serves as the assistant principal. When it comes to nature-based teaching and learning, there is a general receptivity to the idea, a supportive principal, and a range of experience and interest among the faculty.

During her first two years, she taught a mix of third and fourth grade students with a co-teacher in a shared classroom. They began a Forest Fridays program as soon as she got there. She says, "Can you imagine? I showed up at the school and was there for about a week when my co-teacher said, 'we should be outside more.'" They started the Forest Fridays program with the full support of their school principal. She thinks if she had gotten her first job at another school it might have been more difficult. Here, they were able to hike in a local park, build a fire with the assistance of the park ranger, and do a variety of things right away.

Then COVID came. The school went totally virtual in March 2020. Even during that time, she and her co-teacher gave the children projects and assignments that would get them outdoors directly in their environment, rather than sitting by their computers all the time. By the summer, their school administration made the decision to return to in-person teaching by the fall of 2020. She says, "We were pretty nervous based on how many COVID cases there were and the lack of a vaccine. It was pretty scary in a lot of ways, but we went for it."

They were teaching in person by the beginning of September 2020. They quickly decided if they were going to be in person, they would be outside in nature with their students as much as possible. They knew all the educational, social, emotional and physical benefits for their students from nature-based teaching and learning. They also knew the risks of staying indoors in buildings during a pandemic were higher than if they were physically distanced,

masked and outdoors. While they already had access to the nearby park, they wanted to expand what would be their outdoor classroom. They worked with their local police department and were able to get an area secured for their use nearby the school. It is at the edge of a forest, close enough to see the school from the forest hilltop, and a short walk from the building if they needed to use restrooms. There was a clearing with stumps where the students could sit. They created two other areas with stumps, tarps, and chalkboards. They brought in other tarps to provide shelter. Early on, some of the students brought hammocks for individual reading and writing. They created a free-choice area where the students could go once or twice a day for 30 minutes, like a forest playground. This became their forest classroom.

Through the COVID-impacted school year, they were flexible and resourceful. They had some remote students while they were also teaching most of their students via in-person. It wasn't easy, but it worked. Some days they were completely outdoors. Sometimes the remote students came to the woods to join the other students for activities. By the end of the 2020-2021 COVID-school year, Hannah estimates that nearly 80% of their school day was in their forest classroom.

Looking back now to March of 2020 when COVID-19 hit the community, and led to an increase in nature-based teaching and learning throughout the school, Hannah reflects, "I really feel like COVID was a catapult that brought us from where we were to where we wanted to be. I don't think we would have gotten there for many years if it were not for COVID forcing us, in a sense, to put the pedal to the metal. Seeing the changes from being outdoors once a week to being in the woods every day is amazing. It is wonderful to see how much faster the kids establish their sense of place and their excitement about learning."

While early in her career, Hannah has already accomplished a great deal, clearly with more to come:

- Recognized her love for teaching as an undergraduate, so worked without a pause to get her master's degree and teaching certification immediately after receiving her undergraduate degree in environmental science and biology in 2015;
- Completed her master's degree in elementary education in 2017;
- Saw the difficulty in being hired as a full-time elementary teacher without more classroom experience, so consciously chose to serve as a paraprofessional for a year to deepen her experience base;
- Began applying for full-time teaching positions in 2018, and was hired within a few hours after completing her interview at the Rowe Elementary School in Rowe, Massachusetts;

- Began teaching outdoors once a week on “Forest Fridays” with her co-teacher in her first year of teaching;
- Successfully expanded to a forest classroom for use nearly 80% of the students’ time on a regular basis once COVID-19 hit their schools in 2020;
- Is modeling “how to do it” for other teachers with grace and encouragement, providing easy ways to get started for others with less confidence and experience;
- Serves as vice chair for the Massachusetts Teachers Association New Members Committee, helping to provide programming and resources for new educators;
- Is presenting at conferences like In Bloom to encourage others; and
- Is developing her own skills and insights by participating nationally with groups like the NAAEE’s Natural Start Alliance.



Hannah Lindner-Finlay



"I make it really clear that there is guidance that goes along with nature-based play and play-based learning. It is not withdrawing your control. It is giving kids permission in specific ways, giving them guidance and frameworks that they can work within to be successful."

Hannah Lindner-Finlay did her student teacher training at the Shady Hill School in Cambridge, Massachusetts. The philosophy of the school is strongly play-based, which Hannah knew was important to her and to her own philosophy of teaching. Play is natural and should be integral, especially in the early childhood years of school experience. She taught at Shady Hill during her intern year.

Following her internship, she began teaching at the Gordon School in East Providence, Rhode Island. Gordon is a private, independent school that focuses on being a diverse community while teaching about diversity. She says, “That sort of a component is what I care about as a teacher and I love doing that work. They did a great job of holding space for diversity, while incorporating play, and they also had this amazing campus with a lot of great outdoor spaces.” She observed that there was not much explicit curriculum related to nature and wanted to expand the use of the wonderful natural environment that was there. “There was a big playground with a little grove of trees. And then there was the patch of woods that was maybe like the footprint of a house. It wasn’t a big patch of woods and it was a long narrow strip,” she commented when thinking about the school grounds. She started exploring and planning how she and her students could get outdoors in those spaces and places.

At the same time, she knew she and her partner would eventually be heading back to Vermont. She reflected on her own experiences as a child in Vermont, and wanted to be able to integrate nature-based experiences more into her work as a teacher. She says that is what brought her to Antioch. She wanted to shift her teaching approach to more nature-based practices. She also felt like her students didn’t have much experience with nature, and she wanted to give that to them.

Antioch was on her mind already. Most of the teachers where she grew up were from Antioch. Her parents’ friends and her teachers all went there. She loved all the teachers she had who were Antioch graduates. Antioch seemed like it would be a natural fit in that way. What surprised her, and she loved even more than she knew she would, was Antioch’s approach to her master’s degree. Everything was meaningful. Because she was a full-time teacher, everything she was learning could be applied immediately in her classroom. She says, “There was just a lot of space to do that in the way that felt the most productive for my classroom and the most productive for my school.” Her first summer of coursework felt like perpetual brainstorming with Antioch. It was abundant and rich with ideas. She spent three days after her first curriculum course creating a document that organized all of the

information so she could reference it later. She found it to be a great way of gathering materials she could use right away, and on an ongoing basis.

Off to a great start, it got even better when she was given the chance to design all of her own studies for her degree, working with her advisor Ellen Doris. For the curriculum design program, she worked on integrating and developing the forest day programming for the Gordon School. They started once a week where they went to the tiny forested area on campus that the kids called “the big woods.” They were outside for a half day every Friday and developed some routines around that. She started with introducing tools like bug boxes and magnifying glasses. She remembers, “Our first drawing from observation was going out and looking at spider webs because it had been a really dewy day. There were spider webs everywhere, so we went out and we all sat around and drew the dewy spider webs because you could see them well.” She also remembers how curious the children were, about everything. They looked under rocks and everywhere. Once back in the classroom, she found it completely natural and engaging to have the children work on counting—things like counting legs on an insect. She says, “It was just really fun right away, and obvious that it was going to be meaningful.”

In addition to her full-time teaching, and her master’s program work at Antioch, she was part of David Sobel’s nature-based early childhood fellowship program at Antioch funded by the Storer Foundation. During that program, her school in Providence had just opened a STEAM lab for science, technology, engineering, arts and math for early childhood. It had its own room and it had a variety of varied materials that it was using. She worked with the Director to develop curriculum that went from the STEAM lab outside in nature and back and forth, so that they were having a conversation with the outdoors using the STEAM lab and working with other teachers to develop that curriculum. Although she was teaching kindergarten, for her fellowship she was working with the STEAM program with early childhood, ages three through kindergarten. She integrated this with her Antioch studies. The curriculum was her fellowship work, which she documented, and then she taught the teachers about it as well, also as part of the fellowship. There’s an Antioch course on teacher leadership and leading teachers in the school where you are teaching in order to facilitate positive change. Her fellowship extended into that work.

Ellen Doris, her advisor, was giving her feedback and other support. Ellen gave her books about leadership for change and books about how you engage teachers. They had back and forth conversations about things like how you get teacher buy-in in ways that feel positive, and how you work with teachers who are feeling resistant to nature-based work. She found

working with other teachers to be interesting and important. That interest has continued. One of the clear themes in Hannah Lindner-Finlay's attraction to teaching is her compassion and support for her colleagues. She wants them to succeed as much as she wants her students and their students to thrive.

With Ellen's encouragement, she led a professional learning community and nature-based learning group for Keene teachers. She liked thinking about how to build that sense of community with a shared purpose around early childhood nature-based learning. She says that a lot of the teachers who come to Antioch are already convinced of the value of nature-based education. They already have a passion and affinity for place-based and nature-based teaching. At the same time, Hannah appreciates that a lot of this work is about how to talk with teachers who are not already involved. She cares deeply about talking with those teachers who are not yet convinced or aware. Doing her work at Antioch, and continuing in every teaching role she has had since finishing that graduate work, she is alert to the needs of her colleagues. She is always seeking to be effective in talking with those teachers who are cautious, unaware, or resistant to teaching and learning with children outdoors in nature. Often, it is because it is unfamiliar. She had a paraprofessional educator voice concern about what "crowd control" would look like in a nature-based setting. Hannah replied, "We will give the children a structure and framework for playing and learning outdoors." That approach is teaching children self-regulation and a supportive practice that helps them maintain their own boundaries and respect for others.

Hannah did a lot of her practicum work while she was at Gordon that year and then she and her partner moved to Vermont. She was pregnant with their first child. That fall she finished her practicum work at the Putney Central School (www.putneycentral.org). It was an intern kind of position where she helped by working with two teachers, one who taught second grade and the other third grade. One had done some forest work already and the other teacher had not done any. Hannah worked with them every Thursday. She did forest programming with them and then was in the classroom a couple times a week doing follow up work like reading or math or science that they were doing in relation to what the children were learning outside. In parallel to that she started leading workshops at Antioch's In Bloom conferences. Throughout her graduate work, she found support from Antioch for her as a teacher, and also as a teacher leader. She credits Antioch for giving her many professional opportunities. It started with doing some In Bloom presentations, and then Ellen reaching out about her supporting the nature-based professional learning community in Keene. That led her to doing a play-based learning week-long summer professional development program for the teachers in Keene and for some kindergarten teachers.

Next she worked for a year at The Grammar School (www.thegrammarschool.org) in Putney, especially with the early learners, and helped the whole school as they made an intentional shift towards more nature-based learning, even though they had a long-term affinity for that way of teaching and their grounds certainly facilitate that approach. She now has two young children, and has started teaching kindergarten full-time in Dummerston, Vermont at a public school (www.dummerston.wsesu.org) that is also committed to integrating nature-based teaching and learning throughout its offerings. She is delighted to be teaching full-time again. While there is significant support in Dummerston for a nature-based approach, not all the teachers or staff are familiar with this approach. As always, Hannah is eager to be learning from and with her colleagues, as they expand their nature based practices. In her relatively short career to date, Hannah has already:

- Been instrumental in introducing nature-based play and learning to several elementary schools;
- Mentored other educators in the process of becoming more nature-based in their pedagogy, with clear support for ways to do that effectively;
- Provided practical and inspiring workshops at In Bloom conferences;
- Modeled examples of how to introduce her colleagues to nature-based early childhood teaching in positive, non-threatening ways; and
- Helped create a school and community climate where nature-based teaching and learning is respected and valued.



Jane Piselli



"We found that by being able to pay attention to the integration of the classroom and the specific needs of children, outdoor education has offered a broader lens for practices to assist the children. Outdoors in nature we are able to craft an environment where the children feel like they are really empowered. We have had children in our class who are too young technically to be diagnosed with ADHD, but the diagnosis will be coming. Outdoors the children know how to ask for a little help, but at no point in time is there any shaming because there are no walls for them to have to conform within."

Jane Piselli was raised on the grounds of the New Canaan Nature Center (www.newcanaannature.org) in Connecticut, an indelible and inspiring way to spend their youngest growing years. The Center is the highly regarded and oldest nature-based preschool in the United States. Their father was the grounds manager and their mother taught at the preschool. Jane attended preschool and camp there throughout their childhood. As an adult, they returned to serve as a preschool teacher and the summer camp director at the Center, a remarkable journey that speaks to the belief in the value of nature-based outdoor learning that has marked their life since their earliest years. From an early age, they knew the value of outdoor education.

Jane spent their undergraduate years immersed in the beauties of the Acadia region in Maine, studying at the College of the Atlantic. There they focused on experiential education and museum design, so that people would be able to be hands-on in their learning processes. After graduation, they took a few years off to explore and consider what directions they would go to apply their commitment to creating meaningful outdoor learning experiences for others. That led them to Antioch University New England. Jane was interested in its nature-based program as well as teaching certification.

Jane started their graduate work at Antioch in 2015. They were focused and hard-working, ultimately getting certificates in early childhood education, special education, and nature-based early childhood. Jane earned their master's degree and is credentialed as an elementary education teacher, special education teacher, and early childhood education teacher. They found that much of what they had learned at College of the Atlantic during courses in experiential education was relevant and consistent with what they were learning in programs at Antioch. At the same time, Jane was learning a lot that they found to be new and helpful. One of the most beneficial parts, echoed by others who participated in the nature-based educational programs at Antioch, were the people who were in her classes as students as well. Jane is still in contact with many of them.

Jane observes that one of the most impactful parts of her Antioch experience as a graduate student was the emphasis on integrating *all* students meaningfully within any classroom or school environment. This was especially important with respect to special education students. Jane says, "We worked through the understanding that for every classroom to be at its full potential, the classroom itself needs to be integrated so that every child is welcomed with open arms, and every child is seen as having both strengths and areas of potential growth. It is almost as if, when you walk into the classroom, you are able to see every child as having an Individualized Educational Plan, especially in early childhood."

Classrooms, as Jane sees them, are outdoors in nature as well as indoors. The concept of serving all children applies in every learning environment.

After graduating from Antioch, Jane worked at a Waldorf school with children aged 18 months to three years old. Jane says they and the children were outdoors 95% of the time. Then they were invited to come back to the place of their childhood roots, the New Canaan Nature Center to teach in the preschool and with the summer camp program, for which they ended up serving as director for three summers. Jane has been watching the effectiveness of behavioral interventions in outdoor settings for children with special needs as a teacher now for the past six years, although Jane had an awareness of those benefits long earlier. Jane says, “With no walls, the child is able to open up and expand their social abilities in a way that would not be possible as quickly in an indoor, more controlled and constructed setting.”

Jane worked at the New Canaan Nature Center for three-and-a-half years, leaving only recently to work on a doctor of philosophy degree at University of Massachusetts Amherst in special education with a focus on outdoor education and autism. They are especially interested in how the outdoor environment can serve the needs of children on the autism spectrum, providing opportunities to flourish and grow that are not otherwise easily available to them.

This is the beginning of a new phase of learning and contributions from Jane, in an area of the field of nature-based teaching and learning where much more knowledge and skills are needed. Here are a few highlights, with more on the horizon, Jane Piselli:

- Is a life-long advocate for the benefits of nature-based, experiential and outdoor learning;
- Earned three certificates, one credential and a master’s degree in two years at Antioch University New England;
- Has a special passion for the youngest of children, and for the rights of all children to a healthy learning environment where their challenges can be seen as opportunities for growth and success;
- Recognizes the special powers of nature and outdoor environments to create spacious, creative and respectful settings in which children can thrive;
- Has taught preschool and early childhood programs, including serving as director of the New Canaan Nature Center summer camp program for 900 to 1200 children with multiple groups and faculty; and

- Is now focusing their doctoral work on the integration of early childhood, nature-based outdoor education, and special education with a particular emphasis on learning and sharing more effective ways to serve children who are diagnosed as being on the autism spectrum.



Laurel
Galvin



"I've been teaching for over 25 years. I own my own school on Cape Cod. I had been noticing more and more that children didn't have any resiliency, they didn't have a lot of core strength and body strength. . . . I also noticed that they didn't have the freedom and the free time that I had as a child, so I began doing some reading. I came across a book of David Sobel's and it made a lot of sense to me."

Those observations and concerns, and her own drive to learn, led her to Antioch. Initially she had no intention of starting a degree program. She thought she would just take a course as a workshop while still teaching and running her own school full-time. Then she found it so meaningful, the courses so valuable, and the people so terrific that she not only got her masters' degree but also the new certificate in nature-based early childhood. All the while, she was still teaching and running her school.

Laurel is an advocate, an enthusiast, and a no-nonsense experienced educator who knows children, and what is good for them. She knows first-hand that being outdoors in nature is good for children. Her experiences at Antioch have simply reinforced those insights, and gave her a new structure for providing nature-based experiences for children. As part of her graduate work at Antioch, instead of creating a curriculum for children as part of a practicum, she proposed and was able to develop a curriculum for her own teachers—that is, a way to teach her staff about the benefits of nature-based teaching and learning, and how to do it even more than they were already. Laurel says it transformed her school, and it is influencing in positive ways the other preschools in her region. It is even beginning to impact the local public schools.





Here are some of the ways that Laurel got engaged with nature-based early childhood education, and what she is accomplishing. Laurel:

- Saw changes in children that worried her, changes in childhood that led to a diminished sense of confidence, imagination, and even physical strength;
- Read, listened and talked with others, which in turn led her to David Sobel, Anne Stires, and a graduate program at Antioch;
- Took the courses for her degree and for the certificate, and innovated in the process, including creating a curriculum for introducing her own staff and others to why and how to turn a preschool into a nature-based early learning environment;
- Developed a guidebook for those licensing preschools to better understand nature-based schooling;
- Connects with other preschools and public school teachers in her area to share ideas, inspiration, and successful strategies; and
- Continues to learn herself, as she heads toward 30 years of teaching preschoolers with passion, commitment, and care every day, made even more enriching and nourishing for today's nature-deprived and often-stressed children by immersing them in the gifts of nature with other children, in a living community of love and learning.

Lisa Burris



"I felt like I was in a bubble all by myself. Then at Antioch I found a whole group of people who had the same passions and philosophies. I felt so relieved and grateful. I knew from the beginning we were going to have success with our programs at the farm school, especially with children who struggled with challenging behaviors. Antioch helped me do all of this by reinforcing what I was doing."

Lisa Burris and her husband have a family of five children, some adopted and some theirs biologically. Their granddaughter is now also a part of their immediate family. A son of theirs is on the autism spectrum. Nothing was working for him, except time outdoors in nature. It was about 2009 or 2010 and their son was about five years old. Reflecting on the experience of watching her son experience some success, both with language and peer-to-peer communications, she told her husband, “I want to sell the house and buy a farm to serve kids with special needs.”

And they did. By this time she had found Richard Louv’s seminal book, originally published in 2005, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. The book doesn’t just describe the changes that have led to children’s disconnect from nature in their everyday lives, Louv also talks about the benefits to children from re-connecting with nature—enhanced creativity, calm, ability to focus, social skills, academic achievement, physical activity, family bonding, overall well-being and more.

They sold their home and bought the land in 2011. Lisa researched what she could find on nature-based education and its benefits. She could see that a history of nature-based early childhood programs, including preschools and kindergartens, was more prevalent in Europe. She didn’t find a lot of people or programs who were trying to do what she was: serving children with special needs. In her words, “I was constantly doing research—and then Antioch popped up. I saw the nature-based early childhood certificate program and signed up.”

Although she was already designing programs at the farm-based preschool she was creating, she knew she didn’t have a strong education background. Antioch helped fill that gap. Faculty at Antioch would ask her what was of value about what she was studying, because she was already running her own preschool. She found that all the courses were relevant because they reinforced what she was already doing, and gave her ways to improve what she was doing “real-time” like developing budgets and brochures. It was all reinforcing and inspiring. The risk management course, for example, helped her think about liability protections, and how to safeguard against issues that could occur, while reinforcing the value of letting children take those risks in well-managed, nature-based settings—because it is good for them in a host of ways. She says, “Every class I took, I would come back and we would implement it.” And she learned how to document what she was doing, helping her communicate with parents and others.

She earned her certificate, and a friend and colleague who works with her at the farm-based preschool somewhat simultaneously earned her master's degree. That colleague is now assistant director at Turn Back Time (www.tbtime.org) where Lisa is the founder and Executive Director.

Lisa describes a change in how she talks about the school, and feels it is important to share. In the beginning, Turn Back Time was a school that she and her husband founded because of the need they saw in their own family that they knew applied to others. They wanted to create a nature-based school that could serve special needs children, including their own. As time has gone on, the Antioch experience has helped her see that their story is more about serving *all* children. How can people do a better job of serving people with special needs, like her autistic son, and also those with all kinds of special abilities as well as physical challenges that are considered physical disabilities? That is her focus, and the school brings that mission to life.

Turn Back Time has grown. Their commitment to serving all children grows deeper and wider. The numbers of children and families they are serving continues to grow as well. Here are a few of Lisa's insights and accomplishments:

- Faced with a personal situation, a child who was on the autism spectrum, she watched to see where he thrived;
- Seeing the powerfully positive impact of outdoor, nature-based experiences for her son, she researched and learned more;
- Compelled by the evidence, she and her husband literally sold their home in order to buy the land to create a nature-based preschool;
- Wanting to learn more, while already creating the school, she found Antioch University New England;
- She enrolled in the nature-based early childhood certificate program and found it not only met her needs at the time, she was able to share her experiences with others in furthering ways;
- Applying what she learned at Antioch, she and her colleagues have continued to grow the school and what it offers;
- Their emphasis on serving all children, including those with special needs and physical disabilities, continues to grow; and
- They are sharing their learnings with others through regional and national networks, such as In Bloom where Lisa gave one of the keynote addresses.



Matt Flower



“Some of the early learning centers and preschools that I work with have a postage stamp of property but there's so much that you can do and learn by exploring outside and having those direct experiences. By the time they are four or five years old, they know the songs of the robin and they know about pollination. You don't have to entertain them. You're just letting them experience and build on their knowledge. I've been doing this long enough that we've got high school students who had me on field trips, and interns who had me when they were in kindergarten. We have staff at the Urban Ecology Center who grew up with Mr. Flower. It is touching. These are kids of color who didn't necessarily feel like they had a voice in the environmental movement who were inspired to come to the Urban Ecology Center and then give back that knowledge. It's really quite amazing.”

Matt Flower came to teaching as a second career. His undergraduate degree was in business with an art studio minor. He started out in financial services, and then moved to marketing and sales with an auto and truck dealers association. He did this for several years. Although he was good at his job, he became disheartened. He didn't enjoy his work. It didn't touch his heart, he didn't feel as if he was really being of service to others, and he wasn't remotely passionate about what he was doing as a career. At the same time, he was watching his wife's family, and listening to stories about them. They were doing all sorts of things that he thought were interesting and worthwhile like being biologists, missionaries, hydrologists and teachers. He thought to himself, "Why am I in a job I don't love?"

He made the decision to quit his job to follow his heart. As luck would have it, he got laid off two weeks later. That put him in a position to get unemployment benefits while he figured out his next steps. He met with a friend who asked him, "What's your dream?" And Matt said, "I would like to own land up north and teach kids about art and nature." His friend happened to work for the Neighborhood House of Milwaukee, a community center founded to help strengthen children and families in some of the city's most underserved neighborhoods. The center owned 90 acres north of Oconomowoc, Wisconsin and eventually wanted to have someone live on the site, take care of it, and offer educational programming there on the land. The opportunity wasn't yet there, but Matt held on to that possibility and started volunteering with children, youth and families in various ways, including for those in crisis, for about a year and a half.

Within a week of deciding not to renew the lease where they were living, Matt's friend called to say that the Neighborhood House was now looking for someone to live on that property north of town. By then, Matt had some significant experience working with children and families who were living with trauma. He and his wife decided to say "yes." They would make the move to live on the land, care for it, and offer educational programs there. The Neighborhood House of Milwaukee would be able to bring some of their inner city youth out to this land for the environmental education programs that they would offer. Matt and his wife lived there for the next three years. Simultaneously, Matt was working on his education credentials as a naturalist through the Riveredge Nature Center. While he always had an affinity for nature and the outdoors, he didn't have a biology or environmental education degree. He knew he wanted this additional background.

At the three year point with the Neighborhood House of Milwaukee on the land up north, Matt and his wife learned she was pregnant. They would no longer be able to live there. Suddenly he was not only without a job, they no longer had a place to live. They would no

longer have insurance and they would have to move. There was plenty of good news though—they were thrilled to have a baby on the way, and Matt now loved his work. Teaching children about, and in, nature was a perfect fit for him.

He heard about a position opening at the Urban Ecology Center (www.urbanecologycenter.org) in Milwaukee. He sent his resume. Two weeks later, he was hired. That was 2006. He has been with the Urban Ecology Center ever since—serving, adapting, innovating, creating and caring—connecting children with nature in ways that matter for them, and for the environment. The children, youth and families he is serving are primarily from low-income neighborhoods within the city of Milwaukee although there is a span of incomes among participants. Urban Ecology Centers are located centrally within a variety of neighborhoods, so there can be low-income and high-income participants in the same area.





Here are a few of many highlights since Matt began working at the Urban Ecology Center 15 years ago:

- Facilitated two hour field trips for two groups of students from local participating schools, four days a week, throughout the school year, with each co-teaching team reaching over 12,000 students annually;
- Engaged a variety of children from grades kindergarten through high school in these nature-based outdoor educational programs that are aligned with Next Generation Science Standards and are offered at the Urban Ecology Center's three campuses located within densely-populated low-income areas in Milwaukee;
- Conducted these programs for eight years under the umbrella of what they called NEEP (Neighborhood Environmental Education Project) and then decided, while those would continue with other staff offering the services, there was a need for something even more for children from one to six years old;
- Developed PEEP, the Preschool Environmental Education Project, to help meet that need to provide year-round nature-based early childhood environmental education for children and their families;
- Has grown PEEP from its pilot year with 6 partner organizations to now more than 60 partners, serving over 6000 children a year, in a variety of settings with a range of ages;

- Created an intergenerational dimension to PEEP, with grandfriends in older living facilities joining with the preschoolers in activities, a joyful learning experience for all;
- Decided he would benefit from advanced graduate work that focused on early childhood while also meeting his interests in nature-based learning and environmental education, and quickly determined that “Antioch was the only name in the game;”
- Traveled to and from Keene, NH from Milwaukee, to get the nature-based early childhood certificate at Antioch and also qualified for one of the Fellowships to support researching and writing case studies that were published in David Sobel’s *The Sky Above and the Mud Below*;
- Developed a business plan that ultimately filled a significant gap: how to create a nature-based early childhood center in an economically-challenged urban environment;
- Met another need by successfully creating and running a full-day, all outdoor, ten week “forest camp” in the summer for preschoolers, and then a fall camp, and, innovating again with persistence and creativity, a winter camp—all day, outdoors, nearly every day, in all these seasons, in an urban environment with mostly low-income children;
- Now seeing students he had as children come back to be mentors, interns and staff in a form of “green career pipeline;” and
- Expanding his reach to inspire others through focus workshops, seminars, and an Urban Nature-based Early Childhood Certificate program (ECOPEEP) through a partnership with the UEC Institute and Alverno College.

Megan Gessler



"Through my personal experience of parenting neurodivergent children as well as through teaching a variety of learners throughout the years, I have seen transformative and myriad benefits of nature-based education first-hand. As the world pivots in response to a global pandemic, now is the time to recontextualize education. More and more public school administrators see the health benefits of taking children outside in the fresh air for their school lessons. It is imperative to seize this moment and to also share widely the many cognitive, social and emotional benefits from engaging directly with our environment."

Megan Gessler's path to nature-based early childhood education is both surprising and inspiring. Her bachelor's degree is in journalism. She was raised in a home where her family valued time outside and time with nature. The family went camping every summer. Her mom was her Girl Scout leader. Eventually she became her daughter's Girl Scout leader and a leader in 4H as well. Megan has always loved just being in nature.

She worked for several years at her daughter's private school and then worked for two years in a Montessori school. She says, "I got to see things that I absolutely love about education and things that I am not as comfortable with." She started looking for other opportunities. Around that time, she was given the opportunity to develop a nature-based preschool at a nearby county forest preserve. She loved the work, and stayed there seven years. While developing this program, she was thirsty for new insights, grounded resources, and expertise. She found her way to David Sobel and Antioch University New England. At the same time, she has two children with Individualized Education Plans, indicating they have some learning differences that are served by specialized support. Their needs strengthened her views that nature-based learning opportunities not only serve children with special needs, but enhance learning for all children.

She feels it is a right to make this type of education available for all children, a right for all children to have access to nature. She refers to the biophilia hypothesis, the natural desire and tendency for humans as animals to connect to nature. As a society, as many people move farther and farther away from daily connections with the natural world, she is among the many who are observing that people are losing that connection. The movement to nature-based teaching and learning is helping to rekindle that connection. When she started taking classes at Antioch, she says, "I felt like I had found my home. People understood me and understood what I was trying to do. That was so influential for me at that time and really inspired me to do more and to keep going so for me Antioch was a catalyst to my blooming interest in what I was doing and really sparked a brighter fire for me to continue."

Megan ran the nature-based preschool program at the forest preserve for seven years and then an opportunity emerged at the Morton Arboretum, facilitating Megan's access to larger audiences nationally and internationally, while serving local children on an everyday basis.

Megan is currently the Little Trees Program Supervisor for the Morton Arboretum (www.mortonarb.org) in Lisle, Illinois. There are 1700 acres at the Arboretum, including forest woodlands, prairie and wetlands with many diverse habitats and species. She is grateful that she can work in such a special and spacious place where she can share it with children, connecting them with nature on a daily basis.

Megan recently completed 10 years of being a nature-based preschool program administrator and educator. Beginning in 2021, she is now Program Supervisor. As a result, this is the first year where she is not teaching children in a class. She will, instead, be supporting the other teachers and the program. While missing the sense of family she has always created by working with a small group of children each year, she will still have daily interactions with children because she will be helping out the teachers in all of the classrooms.

Megan loves teaching, nature and children. She is fulfilled doing this work. At the same time she values working locally, she wants to see more and more children have the nature-based learning opportunities that she and her colleagues are able to create for children at the Morton Arboretum. She thinks about scale—regionally, nationally and beyond. She also sees a need for adult educators to learn from one another in peer-to-peer networks. As a result, seeing this need to bring nature-based early childhood educators together to learn and support one another, Megan founded the Northern Illinois Nature Preschool Association (NINPA; www.ninpa.org) in 2013, the first regional nature preschool association in the United States. She quickly recognized how impactful and beneficial NINPA was for the continuation of her growth and personal journey, and that of others in the emerging field of nature-based early childhood education in the United States. At the time she founded NINPA to connect with others, there were three other people doing this in Illinois. In some ways, she felt a sense of isolation as so few people knew what she was going through by creating a program, trying to figure out how to attract an audience, and how to get the kind of administrative buy-in and support that would be needed to help it be successful. NINPA has grown to more than 200 members and its momentum continues. The movement is growing in Illinois and well beyond.

Here are a few examples of Megan Gessler’s activities and accomplishments in support of nature-based early childhood education:

- Developed a nature-based preschool at a local county forest preserve where she worked for seven years;
- Guided and taught the Little Trees nature-based preschool program at Morton Arboretum for three years;
- Beginning in 2021, moved into the role of Program Supervisor for the Little Trees program offered through the Arboretum;
- Founded the Northern Illinois Nature Preschool Association in 2013;
- Got her master’s degree and nature-based early childhood certificate from Antioch University New England and earned a Fellowship to develop case studies published in David Sobel’s *The Sky Above and the Mud Below*;

- Was named an advisor, and still serves in that national level role, to NAAEE's Natural Start Alliance (www.naturalstart.org), helping to serve and promote nature-based preschools and kindergartens as well as nature-based early childhood programs broadly; and
- Is working internationally with acclaimed Scottish educator, Dr. Claire Warden, on a framework for nature-based early childhood education with the potential for broad application throughout the world.



Faculty and Staff Profiles

Each of the faculty and staff who are profiled had or has a significant role with the nature-based early childhood certificate program at Antioch University. Some were literally involved from the first day that David Sobel reached out to ask if they would help create the program. Others got involved later—some as a result of being students in courses that were part of the certificate program, and one because her expertise was noticed at an In Bloom conference and she became a guest speaker. Some were only involved in the early years, some have stayed directly involved throughout the evolution of the certificate program. All are inspirational role models in their own right.



Patti Bailie



"I see nature-based early childhood education as something that needs to be a part of public school preschool or pre-service teacher education. It's more mainstream now. It's starting to happen, at least a little. We do pre-service teacher education at the university where I teach. This is an opportunity for us to try to mainstream nature-based early childhood education. Initially, this was very specialized and still is in a lot of cases but I am seeing more and more universities that I think are starting to do this. Antioch was really the first. They were the first to do this certificate program and they're a model for everyone else."

“Clearly this was something whose time had come.” That is what Dr. Patti Bailie said when reflecting on the amazing growth of interest in nature-based early childhood programs and approaches during the past decade in the United States. Patti is one of a handful of people who collaborated with David Sobel to create the Nature-Based Early Childhood certificate program at Antioch University New England.

Patti is like many of us, and particularly those who grow up to care and take action to benefit the Earth, in the sense that her childhood connections with nature were formative. She says, “My preschool and kindergarten years were spent in the woods so maybe that was the beginning and I didn’t even know it.” Early on she thought she would be an architect. She didn’t end up staying in architecture, although she started in college on that path. Instead, she got an undergraduate degree in psychology. Then she was a single mom for a while and decided to go back to school to become a teacher, because, as she says, “that was really what I wanted to do.” She got her master’s degree in education.

She didn’t get a teaching job right away. She started working in a nature center. Here she was doing early childhood environmental education although she didn’t have an early education degree. She had a teaching certification for first through eighth grade. She says, “I didn’t really know much about nature, other than I liked it.” She ended up doing both of those things—environmental education and early childhood education—by working at The Nature Center at Shaker Lakes in Cleveland. “I was there for about six years and fell in love with early childhood environmental education.” She fell in love with something that was gestating with others, and yet didn’t yet have shape and form. While certainly environmental education was an established field, the special niche of early childhood within environmental education was not clearly formed. Beyond that, early childhood learning likely has deeper roots within the nature studies field than in environmental education. Even so, the combination of children in nature and learning was emerging as a priority for Patti, and was beginning to be seen as a need among others. Around this time, she started becoming familiar with David Sobel’s work, but didn’t meet him until some years later.

When she was working at The Nature Center at Shaker Lakes, she was responsible for all of the early childhood programs. Those were once a week programs, and they would meet for 10 weeks a season. They covered a span of ages, offering programs for parents with children who were age two and a half, up to after school programs for fifth grade students. She made a special point to work with early childhood educators to learn more about developmentally appropriate practices. She got some grants to work with Head Start and other early childhood groups that included working with children with special needs. She offered a range of suggestions to Head Start by which they could include more nature in their programs. At Head Start, she saw children in a program twice a month. The children would come to the Nature Center for their whole class time and she would go to their

school for their whole class time every other week. She says that, “The experience woke me up to the fact that this nature-based early childhood experience needs to be accessible to everyone.” Most other nature-based early childhood programs, if offered at all, were fee-based and therefore not available to low-income children in programs like Head Start.

From these powerful experiences in Cleveland where she found herself trying to enrich children’s experiences through nature in developmentally appropriate ways for their overall well-being, she accepted a job offer in Nebraska to work with Ken Finch under the terms of a grant he had gotten to start an early childhood outdoors Institute, which was called ECO Institute (Early Childhood Outdoors). She was hired as a co-director of that with a colleague who was an early childhood educator. This was 1998.

This collaboration with Ken is another that had a positive influence on the creation of the nature-based early childhood certificate and program at Antioch decades later. When she and Ken began working together in Nebraska, the ECO Institute had grant funds that would let the Institute do things not yet being done. For example, Patti and her co-director put together trunks of materials on different topics and worked with early childhood educators and Head Start and a variety of other groups. They would leave the trunks for a month for the educators and their students to have access to all the materials, and then the students and their teachers would come to their center either once a season or once a month, depending on what they were able to do. The grant funding made it possible to offer this opportunity.

Notably, as we think ahead to what unfolded more than a decade later, the ECO Institute had a plan to build a nature preschool. They had an 82 acre site that was right next to the Nature Center with a log cabin on it. They were able to conduct a nature preschool there for one year, without a building or some of the other support they envisioned. They did have a pond and a prairie. They planned to create a children’s forest. Then, as can happen, leadership changed, and the visions and dreams were not fulfilled—at least not there, at that point in time. Ken Finch left to go on to make other contributions to this unfolding vision. The new Director was not supportive. That part of the dream was left there by the pond and the prairie.

Patti left soon after and began work on her PhD at the University of Nebraska in Lincoln. She was immersed in those studies when she was asked to come to the Schlitz Audubon Nature Center in Milwaukee, Wisconsin. After some deliberation, she accepted the offer and became the founding director of the Center’s nature-based preschool. She stayed there for ten years. During that period, she continued her doctoral work. Her dissertation, leading to the award of the degree in 2012, may be the first focused specifically on nature-based preschools. In 2014, she was asked to join the faculty at the University of Maine-Farmington. She accepted that offer with mixed feelings because she was deeply involved,

working with David Sobel and others, in the plans and program development for Antioch's nature-based early childhood certificate program. Although she made the move, she has remained an ally and advisor to Antioch's continuing work.

Beyond David Sobel's unique role as the person most singularly responsible for the blossoming of nature-based preschools and kindergartens in the past decade, Patti's contributions are notable and continue to grow. These in particular stand out:

- Became one of the first in the nation to serve as director of a nature-based preschool;
- Conducted the baseline research that helps us track the growth of these preschools in the United States;
- Facilitated a link with a significant funder for these efforts more than a decade ago;
- Participated with David Sobel, Ken Finch, Anne Stires and others to plan the nature-based early childhood certificate and program at Antioch University New England;
- Developed the foundational curriculum course that is still offered as part of Antioch's nature-based early childhood certificate;
- Provided keynote addresses and other inspiration at early In Bloom conferences;
- Is one of the contributors to *Nature Preschools and Forest Kindergartens: The Handbook for Outdoor Learning*;
- Continues to actively collaborate, as she has throughout her career, with influence-makers and practitioners in the fields of early childhood, nature studies, environmental education and teacher preparation; and
- Works ardently and thoughtfully to bring nature-based experiences to a variety of settings, including public schools and programs like Head Start.



Ken Finch



"When I developed the course for the nature-based early childhood certificate program, it was a broad-based introduction to business thinking and business planning. The two primary focuses were budget preparation and communications. It takes some practice to develop a budget, and we also spent a lot of time on messaging and promotion. Most of these folks were going to have to be able to sell their programs to people who had no clue what they were talking about, so we spent a lot of time on nature-based early childhood and all the benefits. That includes the developmental benefits, but I also stress that this is a conservation strategy, and a powerful one."

“You're wasting your time doing environmental education programs with preschoolers.” That was the opinion of an independent reviewer of an important proposal that nature center director, Ken Finch, had submitted for funding. Ken was the director of the prestigious and highly regarded New Canaan Nature Center at that time, and an emerging proponent of creating nature-based preschools. That was more than 30 years ago. Ken is among the first to say that, thankfully, things have changed—at least somewhat.

At that moment in time, however, Ken was struggling against the perception that if you teach people to understand the environment, they will inevitably come to care about it. The emphasis was on facts, not emotions and experiences. A significant number of decision makers, including funders, didn't believe that children—especially the youngest of them—could meaningfully understand the environment and, as a consequence, that environmental education for young children was fruitless. In contrast, Ken's view was that if you teach people to care about the environment, beginning in their earliest years, that personal connection will lead them to want to understand and protect it as they grow older. In the decades since, Ken's insights are strongly supported by a growing body of formal research and evidence: if you fall in love with the Earth as a child, you are most likely to grow up to take action to conserve and care for it. Knowledge and understanding that lead to informed personal action tend to grow out of empathy and meaningful connections with the environment beginning in childhood.

Ken's years of experience inform his views of Antioch University's contributions. He says, “To the best of my knowledge, there is no institution even close to Antioch in terms of leadership in this field. And I think it's a very good fit with Antioch's philosophy. It's very cross disciplinary, it's a little bit out of the norm, it's not quite your typical college environment, and it works really well. Antioch is leading the way.” Ken recognizes that the NAAEE's Natural Start Alliance has now taken a relevant leadership role to provide ongoing support and professional development opportunities for people now in the field doing the work of nature-based early childhood education. He points out, however, that if someone wants to get a graduate degree, Antioch is the place to be. Before Antioch, people had to get two master's degrees—for example, one in early childhood, and one in environmental education—to effectively learn this field. Now, at Antioch, it is possible to get a master's degree, and soon a doctorate in education, focused on nature-based early childhood. Ken links Antioch's current role in the movement to connect children with nature with its early history and guiding principles under its first President, Horace Mann. Mann is credited with being the father of universal public education in the United States. His vision included work study and internships. In Ken's words, “Mann was in effect driving a movement for a different kind of education that wasn't just classroom bound.” Entrepreneurial leadership with a commitment to public education and social justice is part of Antioch's DNA.

Consistently through his years of leadership and service, Ken has been among the most ardent advocates for connecting children with nature in their earliest years. His experience and insight, and his relationships with other key people, helped contribute significantly to the development of the nature-based early childhood certificate program at Antioch.

Here are a few examples of his contributions along the way:

- He hired Patti Bailie to co-direct a nature-based early childhood program called ECO Institute (Early Childhood Outdoors) at the Fontenelle Forest Nature Center in Nebraska in the 1990s, a wise decision that has reaped benefits over time for the entire nature preschool movement;
- With Patti, developed a widely-used definition of nature preschools that puts nature-based experiences at the heart of everything they do, indoors and outdoors, rather than occasional or even weekly experiences;
- Helped differentiate nature-based preschools from forest kindergartens, with those preschools tending to have buildings and grounds associated with them in contrast with forest kindergartens where the children often are outdoors all day, every day, with little in the way of shelter or other built amenities;
- He founded the non-profit Green Hearts Institute for Nature and Childhood in 2005, an organization, along with its valuable newsletter, that promoted connecting children with nature through play at a young age in order to nurture a conservation ethic as well as serve children's healthy development;
- He collaborated with former President of National Audubon, John Flicker, on the development of a vision and design for networks of nature preschools;
- His conversations and collegial rapport with John Flicker are likely to have encouraged John's support as a Board member of the Storer Foundation, which in turn has provided significant funding for the nature-based early childhood certificate and related projects at Antioch University New England, as well as funding for the creation of what has become NAAEE's Natural Start Alliance;
- Helped facilitate the first annual meetings of what became the Natural Start Alliance as part of the annual meetings of the Association of Nature Center Administrators, an organization Ken has had a leadership role within for decades;
- Met with David Sobel and the handful of others David convened, including Patti Bailie, Anne Stires and others, to develop what became the nature-based early childhood certificate program;
- He developed and taught the original business management and planning week-long course at Antioch University New England for the first four years of the nature-based early childhood certificate;
- Offered an abbreviated version of the course for two years at Antioch's Santa Barbara campus; and
- He was a contributor to *Nature Preschools and Forest Kindergartens: The Handbook for Outdoor Learning* (2015) by David Sobel (Editor), with Patti Bailie (Contributor), Erin Kenny (Contributor), and Ann Stires (Contributor), an important resource.

Anne Stires



“Antioch is such a deeply woven fabric of a place for me . . . I feel like a steward with a lot of incredible people trying to make a difference in the world, and I can't imagine another place where I could be where this work would feel so impactful. . . I knew there would be some sort of lifelong connection to the place, just from my experiences in graduate school.”



Anne Stires is one of the handful of people who David Sobel reached out to in order to develop the nature-based early childhood certificate program at Antioch. A graduate of Antioch in 2006 with a Master's in Integrated Learning with a dual certification in early childhood and elementary education, she says, "The certificate program didn't exist then. I would have absolutely taken every course, and I would have done that certificate, in addition, but it didn't exist."

Moving ahead to around 2009, Anne and David had a notable conversation. Anne recalls reminding David that he told his students to be "crusaders in the public schools." She said to him, "As much as I believe in that, it is clear to me that the public schools have very few models." She felt strongly that they didn't have the models they needed for nature-based and outdoor learning. She felt that perhaps she could start a school that could help be a model for what could happen in the schools. She reports that he said, "Well, I did say that but I didn't mean for you to be a crusader in the public schools. So, go, start your own school." That is when the school Anne founded, Juniper Hill, was born in concept.

It is not as if this was going to be easy for her. A young mom, living mostly off the grid with no running water, there was work to do and not enough time in any day to get it all done. But she had a vision, and a clear objective in the face of what she felt to be a dramatic need. Teachers and administrators needed to see it working. And they needed guidance and support to become confident and capable nature-based educators. She felt compelled to create a school where these things could happen.

She dove in. She began a pilot program in 2010. She says, "I wish that the nature-based certificate program existed. No one knew how to do this stuff!" After the pilot year, Anne, with the support of more than a dozen families and another teacher, officially opened Juniper Hill School for Place-Based Education in the fall of 2011. They started with 12 students and 2 teachers and ended that year with 18 students and 2 full time teachers with another part-time support teacher. Anne was directing the school and teaching full time.

Very quickly, she learned that they needed the experience of wilderness trip leaders such as Outward Bound or NOLS-like teachers to come and be paired with classroom teachers, because classroom teachers applying to work at Juniper Hill School didn't fully have this kind of outdoor understanding. According to Anne, that became an expensive model, but a very important one in terms of training and how to have both skills in the classroom. And safety was the most important consideration for this kind of pairing. She decided that having two teachers with 10 children was vital, because of the amount of time being spent

outdoors in nature doing a variety of things that were inherently risky. The children involved were ages four to eight years old at the time. As it turned out, the school grew in both directions and ended up serving 3-11 year olds in the school program and birth to 5 year olds in a community play group program. Beyond the reality of the basics with the children each day in this new learning environment, including how to teach elementary academics outdoors and in deep connection with nature, there were the regulatory requirements. She needed not just one, but two licenses: one with the Department of Health and Human Services as a child care facility and one with the Department of Education as a private school. As she says, “It was a lot.”

And that's how Juniper Hill School (www.juniperhillschool.org) began. She and David Sobel stayed in touch throughout this process, as he was a founding Board member of the school, serving on the Board of Trustees from 2011-2015. David's In Bloom conferences began at the end of the first year of Juniper Hill School. That was the spring of 2012. Anne presented at that first In Bloom conference, held in Keene at the Antioch campus, and there were about 40 people there.

She continued to present and provide other support for the In Bloom conferences as they grew. Then, something emerged that David had in mind all along. In 2014, plans began to take shape for the nature-based certificate. Anne was an integral and influential member from the beginning. She was involved in the brainstorming sessions about what would be included, and all the detailed plans that led to its launch.

She had a key role as the developer and teacher of one of the required core courses for the certificate, Risk Management in Nature-based Early Childhood Education. She also teaches a natural history course for the program called Teaching in Winter and is now teaching another of the required courses, Business Planning for Nature-based Early Childhood Programs. All of these classes are important, and remain so as the certificate program continues. The Risk Management course, however, is often the one that most people talk about. It helps in profound ways, not just helping people learn how to manage risk with children outdoors in nature, but to bring joy in the process and a bonding for all involved.

While Anne Stires' contributions are many to the nature-based early childhood program at Antioch, and will continue, here are a few of the exceptional highlights to date. Anne:

- Earned her Master's degree at Antioch before the nature-based early childhood program was an area of focus, making it clear that this dual focus would be valuable to others as she helped lead the way to create an appreciation for the growing need;

- Put Antioch's guiding principles to work in her own life by founding a nature and place-based school that would not only serve young children, but would be a place for teaching, inspiring, and mentoring teachers and other educators;
- Presented at all of the early In Bloom conferences and continues to participate, often as a keynote speaker, frequently also opening and closing the conferences;
- Since 2019 has coordinated the In Bloom conference held in Maine;
- Wrote the first chapter in David Sobel's *Nature Preschools and Forest Kindergartens: The Handbook for Outdoor Learning*;
- Wrote the safety chapter in the NAAEE Natural Start Alliance's *Nature-based Preschool Professional Practice Handbook*;
- Became an influential and integral part of the informal planning team that created the nature-based early childhood certificate;
- Developed and continues to teach the Risk Management course, now being offered both as an in-person summer intensive and as a seven-week online course, and also teaches the Business Planning course and Teaching in Winter;
- Gave a keynote address at Chicago's Natural Start Alliance conference in 2018 and facilitated a panel with internationally-known educator Dr. Claire Warden and Aliza Yair;
- Is founding chapter leader for Inside-Outside in Maine;
- Will be speaking at the Children & Nature Network's 2022 International Conference in Atlanta, Georgia along with a superintendent of schools who participates in the Administrator Professional Learning Community she started in Maine;
- Actively consults with teachers, administrators, and others in the states of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Delaware and beyond (Washington, Oregon, Colorado) to provide support for nature-based education to become more widespread as a safe, inspiring, and effective part of public as well as independent schooling; and
- Currently works primarily in public schools and childcare programs.



“What's so great about Vermont is that being small, and being so connected with each other in these communities, you can start a little project and have it spread. People see the effects and they want that. That's really how the ECO Institute came to be. It was the public school teachers who were saying there are all these private programs doing this and children are benefiting, so why can't we do that in the public school?”

Amy Butler

Amy Butler has been doing nature-based education work for more than 20 years. When she thinks about how she came to this work, she starts with her childhood. She thinks about her happiest moments as a child, where she felt safe and felt like she belonged. She says, “My healthiest attachments, to my parents and family members, and to my community—those really healthy joyful places—were always in the natural world. I realize how fortunate I am to have had that kind of childhood. I guess it is not surprising that I would look for my work in the world to be based in a place where I feel safe, where I belong, and where I can have meaningful relationships with others.”

Early on her path, she went to forestry school at Paul Smith College. Her favorite class was identifying all the trees and getting to know all their names correctly, which, in its essence, is a form of relationship building. Relationship building is a theme in Amy’s life and work. In forestry school, she loved understanding the other species that were around her—specifically which trees, who they are, what they need, where they live. Then she went to Goddard College to study at the Institute for Social Ecology. She was looking for that big picture of how people work together socially, how people work as a culture. She questioned what works and what doesn’t. She wondered how everything fits together in a social system, embedded in natural systems, and how all the parts interconnect. She was able to relate her academic studies of social ecology to her love of the natural world. She thinks ecologically.

Following these studies, she explored. In her words, “I kind of dabbled around.” She did some environmental education work. She thought she was going to be a farmer and traveled around the country working on different types of sustainable farms, always thinking systemically and ecologically. She came back to Vermont and started a family. No TV, no video games. She raised her kids completely unplugged, and homeschooled them for a while.

Then she came to realize that she loves teaching and being with children. She went back to school to get her teaching license. Through that process she learned how to speak the language of public schools. At the same time, she heard a little voice in the back of her head saying, “Are you sure you want to be inside all day?” In her heart and mind, she already believed strongly that what is really best for children—socially, academically, emotionally, and physically—is being outdoors in nature as much as possible.

She entered the public school as a teacher. She asked herself, “What can I do here? What can I achieve?” She started working in a special education department doing direct service

for children in speech and language. She took them outside whenever she could, for 20 or 30 minutes. She tells the story of one fifth grade student who had a tremendous impact on her, and, as a result, her career. The child had trouble talking. They couldn't easily string words together to form sentences or have a conversation. Comprehending any kind of reading and then having to write it down was not only painful, it was impossible. She quickly learned, however, that they shared a love of birds and the outdoors. They were on a school campus of 60 acres with another 140 adjacent. There were different species and habitats, so she brought binoculars and a spotting scope for them to take outdoors. They learned field marks of birds. Their passion for birds, and their experiences outdoors with their grandfather especially, helped the child make connections that worked for them. The words started to flow. They were able to talk about field marks, and talk about shapes of birds, because they were looking at them. Then they started using the scope with a camera. They would put it up really, really close, so they could get photographs and videos of birds that were farther away. From there, the child started drawing comics and narrating the videos they were doing. These were stunning breakthroughs in the child's verbal communications and self-confidence. Amy thought, "Okay, there's really something to this relationship and attachment to the natural world. The love that was generated between the child and their grandfather, and being outdoors with all those sensory experiences, broke down those barriers of how we are supposed to learn reading and writing in the public school. The school's approach was not working for them, because they did have a significant learning difference. The approach that was very linear and all on paper, with the child in a room with no windows, didn't work." They and the other special education students were sent to Amy for speech and language in a room with no windows. She says, "It was basically a closet. That approach clearly was not helpful for anyone."

Frustrated by the constraints, Amy left her job teaching in the public school, but she didn't lose her commitment to supporting teachers, administrators, and all the students in those schools. She figured out another way.

It started small. A parent of a kindergarten student was also a professor at Middlebury College. The parent wrote a grant application to support some outdoor teaching and learning time for the students in the school where her child was scheduled to be in kindergarten. The teachers at the school had heard of Amy, and reached out to her. Amy agreed to help, and they started a pilot program where they would get the children outdoors in nature a few times a week as part of their learning in school. She worked with two teachers at Union Elementary School in Montpelier, Vermont. The nearby North Branch Nature Center (NBNC) heard about what they were doing and asked if they could

collaborate. About a year later, that led to Amy working at NBNC, initially part-time and quickly full-time, in an integral role. A decade later, she continues to work as Education Director at North Branch Nature Center (www.northbranchnaturecenter.org), helping to grow its programs and services to children, families and educators throughout the region and beyond.

Not an Antioch graduate, Amy is an important contributor to its nature-based educational work. She co-teaches in the certificate program and provides consulting as part of Inside-Outside. Here are a few examples of Amy's leadership:

- Co-founded the nature-based forest preschool at North Branch Nature Center (NBNC) in Montpelier, Vermont;
- Co-developed the NBNC's diversity of programs and outreach to children, educators, and others in the region, including its ECO Institute;
- Correlated nature-based outdoor lessons to core standards to help public school teachers justify their legitimacy in support of student achievement;
- Provides direct support to teachers in a network of schools in Vermont on an annual basis, serving some school communities for more than a decade;
- Co-facilitated the successful pivot of teachers at Moretown Elementary School in Moretown, Vermont to nature-based outdoor education when their school building was devastated by Hurricane Irene a decade ago, helping those educators serve as guides and mentors to others with the impact of COVID-19 beginning in 2020;
- Participates frequently as a presenter at Antioch's In Bloom and Inside-Outside conferences and events;
- Co-teaches and advises courses within Antioch's nature-based early childhood certificate program;
- Is an ardent, authentic, and skillful exemplar of the benefits of nature-based schooling for all;
- Is writing a book with lesson plans that demonstrate core routines for outdoor learning and nature-based ways to address issues of social justice, diversity, equity, and inclusion; and
- Is a voice for underrepresented children and youth in nature-based teaching and learning, with a deep respect and appreciation for the cultural wisdom of Indigenous and other ways of knowing.



Eliza Minnucci



"I have a personal and professional commitment to the children growing up around me—that they shall grow up healthy and happy. I think the best way to use my skills and affinities is by being an educator—by connecting deeply with a group of kids each year and having the best effect on their life I can. I hope that while doing that I can be a model of the good that can be done in public schools. My initial success in facilitating a Forest Day program as a classroom teacher helped inspire more teachers to do the same, and now there are dozens more classrooms and hundreds of young children getting the same opportunities. I think it was powerful to be a real classroom teacher, really doing it. If I hadn't actually done it—if I had only come at it as a consultant with the idea—I don't think it would have been compelling to that many teachers. I want to make public schools as phenomenal as they can be, and I think I have to do that from the inside."

The first time Eliza Minnucci got involved with Antioch University was after having seen a documentary called “School’s Out” about a forest kindergarten in Switzerland. She was so inspired to try something similar that she talked with her principal at the public school in Vermont where she was teaching. The principal gave her approval and encouragement to try it out. This was in 2013. She heard about a new nature-based early childhood curriculum course that was being offered by Patti Bailie. At the same time, Eliza and her friend and colleague Meghan Teachout were beginning their plans to support Eliza’s first year of teaching a nature-based kindergarten. The timing was perfect. They both signed up to take the course.

They were there as a team. Their class project was to design and plan their kindergarten curriculum. They noticed that most of the other people in the course were planning curricula for private schools whereas their focus was on creating this program within a public school setting. She and Megan made a decision to have their kindergarteners outside in the woods for essentially a full school day. They reasoned that if they were outdoors for four hours, rather than two hours every few days, they and their students would have an extended time for shared learning and solving problems together outdoors. There was the underlying educational rationale. The springboard for planning the details of the Forest Days kindergarten program was Patti Bailie’s one-week-long curriculum course at Antioch University New England.

By the time their Forest Fridays started, Eliza and Meg were able to secure grant funding to pay Meg to work with Eliza one day a week. That allowed them to reduce the ratio of adults to children from one to 20 to one to nine or ten. While they co-taught, it made it easier and more effective for them and all the children to have this reduced class size. From the beginning it was fun and successful. There were more benefits to the children, and themselves, than they had even imagined. Little did they know at the time that their successful efforts would attract attention far and wide, and would contribute substantially to the growth of nature-based kindergartens and preschools.

Being in a public school setting, there were concerns about children’s academic achievement. Would the students lose ground when tested for their skills on standardized assessments? From the beginning, the children did as well as their counterparts on their reading assessments, comparing the Forest Fridays group to a comparable class from the year before. Beyond the measures that indicated comparable results when testing reading, there were some other benefits that showed up quickly. For example, students who were well-suited to sit in class, and listen and take turns, and raise their hand to speak—both

boys and girls—found themselves challenged outdoors. Eliza says, “It felt really beneficial to see those kids have to confront challenges like climbing a tree and not being able to be the best at it and being a little scared of it and getting the repeated chance to try it again and to watch other kids be better than them for once.” The children who previously struggled indoors in the classroom setting were suddenly doing better than their counterparts who were adept at the requirements indoors but finding many new opportunities for growth outdoors. This mix of settings where different strengths emerged for different children was beneficial overall for everyone.

There were fewer behavior issues during Forest Fridays, fewer scuffles and other issues. Children were better able to self-regulate, with more space and freedom to negotiate, play and learn. There was an increase in the number of parent and grandparent volunteers, including many who had not previously been involved and were eager to be outdoors with the children. There were other benefits, observed and commented on by specialists like the occupational and physical therapists. They would say, “We try to create challenges like this for the kids we work with and it's just there outside. There are things for them to climb. We don't have to make up the motivation, we don't have to create some prize system because at the top of the hill you've got a fire and they're going to sit around the fire with their friends. They are going to get to the top of the hill.” They consistently got positive feedback from special educators. They reported children with autism who would speak in longer sentences as a result of the outdoor experiences.

Another example that positively affected most children was with journal writing. Writing once a week in their journals was stressful for some children whose fine motor and literacy skills were not yet developed. Writing in conjunction with their outdoor experience was always easier and less stressful. And, being in a public school, the teachers are responsible for their students’ achievement on common core standards. A relatively new requirement is for the children to read 50% non-fiction. This became a natural fit in the context of playing and learning outdoors in nature since non-fiction references were useful and meaningful.

All of this occurred in their first year. They were planning to continue, both got pregnant, and they were concerned the Forest Fridays might not continue while they took maternity leaves. With resourcefulness, commitment and the support of their principal and others, the program not only has continued, it has grown.

Eliza's and Meg's Forest Fridays have seeded many other nature-based early childhood opportunities and programs. Here are just a few highlights and examples of Eliza's continuing contributions; Meg has a set of accomplishments in her own right, not all of which are reflected here:

- Providing in-depth support and consulting services through their company, Forest Kinder (www.forestkinder.org); for example, they have had long-term, multi-year, school-specific professional development contracts with five public school systems in three states--Vermont, New Hampshire and Massachusetts;
- Speaking and providing workshops at conferences locally, regionally, nationally and internationally;
- Serving as lead faculty for required courses in Antioch's nature-based early childhood certificate program;
- Facilitating Professional Learning Communities on nature-based early childhood;
- Between the Professional Learning Communities and school contracts, providing more than 145 educators with long-term, responsive, place-specific professional development;
- Contributing by example and word-of-mouth to the development of Forest Day programs at more than 60 public schools in Vermont and the Connecticut River Valley;
- Writing and publishing, including Eliza's book, with Meg's contributions, *A Forest Days Handbook: Program Design for School Days Outside* (2018); and
- Planning to return to public school teaching full-time within the next year or two, believing she can inspire teachers to embrace nature-based teaching from the vantage of demonstrating its benefits from her own classroom.





Liza Lowe

"People who typically come to the nature-based early childhood certificate program tend to be new to nature based education. Or they feel isolated because they are working in a public school and they are doing something pretty unique compared to their colleagues. Increasingly, they want the legitimacy of the certificate that helps add credibility to their work. They go through the certificate program and there is a deep sense of community that develops. When that ends, it's now what? They want to stay connected with people who are doing the work. These are the main factors that led to our creating a professional network community that became Inside Outside."

Liza Lowe spent her childhood years in Michigan with, in her words, “lots of time outside.” As an older child, she worked on a farm, continuing and building her personal connections with nature. In high school, rather than taking typical science classes, she was able to take biotechnology courses. As an undergraduate, she studied environmental studies and created independent studies and research projects for academic credit. Out of college, she began working as a naturalist with children outdoors in nature. Before long she realized, “in order to have a really sustainable job, I probably needed a master’s degree.”

In doing research to determine where she might study for the advanced degree, she read Richard Louv’s book, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* (2005, 2008). David Sobel and Antioch were mentioned in the book, so she called Antioch and made the decision to enroll beginning in 2007. That was before the nature-based early childhood certificate was offered. She focused on integrated learning and environmental education and graduated with a master’s in education.

Before too long, she had a child. When looking for a preschool for her daughter to attend, she was alarmed at the limited options for programs spending time outdoors they found. It was at that point that she founded the Wild Roots Nature School. She saw a gap and niche to fill in their community and region in the Keene area of New Hampshire. While she was doing the research and preparing to start enrolling children and developing programs for Wild Roots, Antioch was starting the pilot courses for the nature-based certificate program. The timing was perfect. She was able to take the initial business planning course offered at that time by Ken Finch, well-known director of nature centers and proponent of nature-based preschools. His practical experience was invaluable as she started Wild Roots. When she and her family traveled during those years, she would visit nature-based programs in other states, adding to her insights and experiences to help her create a successful nature-based preschool.

Antioch’s In Bloom conferences also started around that time. She says, “It was timely and lovely because it provided an opportunity for Antioch students to come out to Wild Roots, which was right in Keene and visit during their courses.” At the same time, Liza was invited to be a guest speaker for students enrolled in various courses that were being offered through Antioch’s education department.

She ran Wild Roots for six years. In the early Wild Roots years, she became adjunct faculty for Antioch’s nature-based early childhood certificate program. It was becoming increasingly clear that a community of people interested in nature-based early childhood

education was developing, and it was expanding in the region. There were educators in Maine, New Hampshire, Vermont and beyond who were coming to the In Bloom conferences, enrolling in the certificate program, and signing up for graduate work at Antioch.

People were looking for ways to connect with each other, to learn more, and to share both their successes and challenges. That led to the creation of the New England Nature-based Early Childhood Educators (NENECE). Soon, however, the momentum expanded to include educators who were teaching older children. Six months into NENECE, some people were saying, “I don’t identify as an early childhood educator” or “I don’t live in New England.” The organizing team of Ellen Doris, Liza, David Sobel, Anne Stires, Eliza Minnucci, Amy Butler and others quickly said, “Ok, let’s create a new name,” and Inside-Outside was born, open to anyone interested in nature-based teaching and learning. The name Inside-Outside was already in use as an Antioch-affiliated annual conference for nature-based educators. The purposes were compatible, so NENECE became Inside-Outside and grew to a robust website, www.insideoutside.org, with a host of terrific resources. The site is used as a place where people can get access to materials. They can sign up for webinars and join local chapters under the auspices of Inside-Outside. Participation is now not only regional, but is national and international.

Liza has served as the coordinator for Inside-Outside since its inception. Here are a few highlights from Liza’s work in support of nature-based education:

- Completed her master’s in elementary education at Antioch University New England, helping to nourish the growing need for nature-based early childhood courses and resources from her role as a graduate student;
- Actively collaborated and encouraged others to get involved;
- Was one of the first participants in Antioch’s pilot of what would become the nature-based early childhood certificate program;
- Founded and ran a nature-based school for seven years to help fill a gap for her own family and the wider community of children and parents in the region;
- Closed the school due to family needs and is currently exploring options for re-opening Wild Roots;
- Began as a guest speaker, then co-teacher, and now teaches the required course on working with families and communities as part of the nature-based early childhood certificate program at Antioch;
- Speaks and offers workshops at conferences and programs like In Bloom, Inside-Outside and the Natural Start Alliance;

- Coordinates and actively manages the Inside-Outside (www.insideoutside.org) offerings, including its conference, website, and local chapters;
- Offered roundtable discussions for middle and high school teachers through Inside-Outside, again because of growing needs and interests to be served;
- Is an active member of the Monadnock Early Childhood Education Committee and its role in passage of a New Hampshire law that mandates play for kindergarten-aged children as part of the curriculum;
- Is also actively involved with the Monadnock Place-Based Educators Committee, <http://monadnockpbe.weebly.com>; and
- Continues to seek opportunities for collaboration in support of children's healthy development and connections with nature in their daily lives.





Peg Smeltz

This is a photo of Peg with Antioch Professor Emeritus David Sobel. Peg made the quilt pictured behind them and Antioch's Education Department gave it to him as a retirement gift.

"I grew up in a small neighborhood built out in the middle of farmlands with covered bridges at each end of the development. The neighborhood was full of children. We had a vast playground with woods, fields and creeks. There were no organized sports for young children (but there were neighborhood softball games in our backyard) and lots of hide and seek before dark! Girl Scouts was my main activity. I had the privilege of having a Girl Scout leader who traveled up through the ranks with our troop. Her daughter was my age and a good friend. We hiked and camped a lot. She taught us the names of the trees and plants we found on our hikes. One camping trip was specifically designed for emergency preparedness! In my family, camping was our vacation. I had a strong connection to nature. I am sometimes surprised how much that learning has 'stuck' with me. So much of it happened without adults hovering over us. We were free to roam. Being a part of this work—even in a supportive role—is my contribution to keeping that alive for future generations of children. I had the privilege to live a nature-based childhood!"

Peg Smeltz has had a varied career, consistent with her diverse talents and interests. She's been a graphic designer, educator, industrial arts teacher, magazine editor, baker, caterer, engineering researcher, project coordinator, bookkeeper, events planner, mother, and wife. At home she has been a significant participant in the renovation of her 1890s farmhouse, developing skills in wiring, plumbing, drywall, and floor refinishing. And her hobbies include organic gardening, basketmaking, bookbinding, calligraphy and quilting. But quilting has been her passion for the last 20 years. In her words, her "best quilt to date" is the one she was contracted to make for David Sobel's retirement.

She has worked at Antioch University New England for nearly 20 years, primarily in the Education Department. For the past decade, she has been the one to design the flyers, name tags and overall aesthetic for all of the In Bloom conferences and workshops. In many ways, she is the heart at the hearth—that is, she makes sure that the workshop space is warm and welcoming, with fresh flowers from nearby gardens and abundant, nutritious food served beautifully. She makes it a priority to have all the participants feel cared for, valued, and respected.

She met her husband six months after she earned her undergraduate degree in teaching industrial arts. Early in their marriage, they moved to Colorado where he was enrolled in a master's degree program. Rather than teaching, she used her engineering-oriented skills and did things like drafting for a power company and making maps for an agricultural research lab. Before long, she was given a research and teaching assistant position to work on her masters in industrial arts and sciences. She completed that master's degree and ultimately earned a second master's degree at Antioch University in Leadership and Management.

While she was working on her first master's degree, she and her husband moved to Ohio. During those years, they had their children. They moved to New Hampshire in 1986 and for two years Peg served as the editor of Northeast Sun magazine, a publication of the non-profit Northeast Solar Energy Association. She says it was a difficult time for solar energy, with funding a challenge, and the organization struggled. In the early 90s she was primarily staying home to take care of her husband Brian's and her children. In 1996 a friend of hers decided to open a bakery in Keene, New Hampshire. She and a group of women, all of whom knew each other through their church, became the staff. Peg worked there until 2001 when her husband passed away unexpectedly. His death and the societal jolt created by the events of September 11, 2001 had her step back for a few months to figure out what might be next. Brian's employer, a local timber-frame builder, offered her the

opportunity to organize the company's archives. She spent that spring scanning photographs and organizing architectural drawings. It was a perfect job for that time because she could immerse herself in seeing Brian's contributions both in his house designs and in photographs. Peg says, "It was an ideal time to heal. The company and Brian's colleagues—our friends—took very good care of me."

Looking for something that could become both full-time and longer term, she learned of a part-time position at Antioch University New England in the advancement department. Then she put together combinations of part-time positions at Antioch, finally serving as the office manager of Antioch's Center for School Renewal. She began her work at Antioch in 2002, where she has been ever since.

Peg's accomplishments in support of the nature-based early childhood program at Antioch include, and are not limited to:

- Coordinating, marketing, registering participants; catering; designing brochures, name tags and certificates of completion; and managing the logistics for all the In Bloom conferences in seven states held from 2012 to the present;
- Corresponding with all participants in those conferences;
- Keeping track of budgets related to In Bloom and other income and expenses associated with the nature-based early childhood program and the Center for School Renewal;
- Providing support more broadly to the faculty and students in Antioch's Education Department; and
- Serving on a four-campus committee to develop a Continuing Education initiative at the university level.

What's Next



While this report begins with David Sobel's vision, it is clear that it is no longer his alone. I imagine that few things could make him happier.

David is someone who turns dreams into realities. He has made it a career to share those dreams with others. He believes in children thriving and growing with loving care, inextricably connected to the living world. He knows that children who feel that connection are most likely to care for themselves and for others, including the living Earth. He also knows that people live within communities, and those communities are inter-connected. Everyone and everything within them has a contribution to make, a role to play. In that spirit, the nature-based early childhood program at Antioch is a living community and it is growing.

The reasons are many. First, more and more people recognize that there is a compelling need to reconnect children with nature, for their health and well-being and that of the Earth itself. Beyond that, the evidence is clear that nature-based play and learning yield cognitive, social, emotional and physical benefits to children. Children are intellectually stimulated, creatively challenged, and refreshed simultaneously. They naturally learn in context, surrounded by the real material of their living world. They learn cooperatively, helping one another solve problems and invent solutions. They have fun, they experience joy, they feel safe, and they feel relaxed. They tend to be able to self-regulate, learning how to take risks and stretch themselves in the process.

A nature-based childhood where meaningful connections with the plants, animals, sky and waters all around them are experienced naturally, and often, helps develop empathy. Empathy in the early childhood years is part of their loving curiosity, and helps lead them to care for their environment, and one another, as they meet progressively more challenges.

As a result of increased recognition of these benefits, and the steadfast efforts of many, the children and nature movement is growing. Antioch is leading the part of the movement that focuses on early childhood, preparing educators to bring nature-based teaching and learning to children's early growing years. Antioch's leadership is extending to nature-based teaching and learning for older students too. Antioch's clear message is that nature-based education is good for children, and will help them grow into capable adults who can get along well with others, including the environment that supports all life.

The faculty, associates, staff and students who are implementing this shared vision are strong and talented. Their expertise is deep, and is growing organically into communities of change. The graduates are asking to be connected to one

another, to nourish one another in order to reach and engage even more. Antioch's nature-based early childhood offerings are the natural source of the seeds that are being spread in communities far and wide. The In Bloom conferences, Inside-Outside, the nature-based early childhood certificate program, the master's degrees and soon doctoral degrees, and the growing formal and informal professional learning communities—these are all providing nutrients to the larger process of nurturing a movement dedicated to optimal nature-based learning experiences for children in their early childhood and elementary-school years. The seeds are fertile, the soil is well-prepared. The seedlings are sturdy. As they bloom, in the natural passage of time, their seeds too will disperse and grow.

As I complete this report, I offer these specific recommendations to Antioch University:

1. Share these findings university-wide.
2. Create a guidebook and curriculum for educators on all campuses to assist them in offering the basic elements of nature-based early childhood and elementary education, beginning with In Bloom and Inside-Outside annual conferences in each region and growing to certificate and advanced degree programs. Those conferences and workshops demonstrably created an audience and market for Antioch's certificate and degree programs, especially in New England, with the potential to increase enrollment university-wide.
3. Develop a communications and outreach strategy to proactively promote Antioch University, and all of its campuses, as the premier institution of higher education for nature-based, place-based, environmental education and outdoor learning.
4. Support the continued development, expansion and potential of Antioch's Inside-Outside network, a model for collaborative regional efforts.
5. Celebrate the outstanding contributions of faculty, graduates and others associated with Antioch's education programs. Promote their publications and programs, all of which help to build a constituency and audience for Antioch's offerings. Combined, they demonstrate proactive leadership in the related areas of social justice, equity, inclusion, nature-based and outdoor learning, environmental education, mindfulness, Waldorf education and more.