



Robin Moore, Professor

Dipl. Arch, MCP, Hon. ASLA

Professor of Landscape Architecture & Environmental Planning

Co-founder, Natural Learning Initiative

EDUCATION

University College London (Bartlett School of Architecture), Diploma in Architecture, 1962.

Massachusetts Institute of Technology, Master's in City and Regional Planning, 1966.

EMPLOYMENT

NC State University

North Carolina State University (since 1982). Professor of Landscape Architecture (full professor, 1988). Co-founder, Ph.D. in Design (1999). PhD Affinity Faculty since 1999. Interim Chair, Department of Landscape Architecture (2005-2006).

Natural Learning Initiative (NLI). Co-founder (2000), College of Design. Director. NLI conducts interdisciplinary research, design assistance, community engagement, and professional development, in the area of children and family outdoor environments. NLI Mission: *Healthy Human Development and a Healthy Biosphere for Generations to Come.*

Center for Universal Design (CUD), Co-founder (1989), College of Design. Director, Training and Dissemination (1989-93); Chair, Academic Policy Committee (1996-2000).

Prior Employment

Stanford University, Stanford, California (1979-1981). Adjunct faculty, Urban Studies Program. Courses on community participation in urban design and multi-media communication.

People-Environment Group, San Francisco, California (1977-1979). Research Associate. Urban childhood policy study, sponsored by the Ford Foundation.

University of California, Berkeley, California (1969-1976). Assistant Professor of Urban Design/Landscape Architecture, College of Environmental Design. Community-based design, urban design for children and families, and student initiated interdisciplinary studies linking landscape architecture, education, and natural sciences. Conducted foundational research that became the book, *Natural Learning*, inspiring the founding of the Natural Learning Initiative at NC State University.

Since 1982, in support of NC State's Land Grant Mission, Professor Robin Moore has educated students from North Carolina and around the world to engage low-resource communities in positive, equitable, bio-social design to inspire a caring culture for people and planet, across the life span.

Since 2000, the Natural Learning Initiative lab, directed by Professor Moore, has served 50+ graduate students who benefit from accumulated built environment design and assessment knowledge and develop new tools, design thinking, and policy change to address pressing health and wellness needs of all children/families, beginning in infancy.

Students are engaged in research and application of results to evidence-informed design assistance in low resource communities. NLI educates by:

- Engaging students with communities in educative design processes;
- Inspiring students to innovate bio-social settings in everyday life contexts;
- Working in underserved communities;
- Conducting interdisciplinary, multi-method, environment-behavior research;
- Building / translating / sharing knowledge;
- Supporting practitioners through post-professional education;
- Influencing public policy and governance;
- Communicating results and resources to multiple academic and practitioner audiences;
- Co-creating effective, system change models.

Moore Iacofano Goltsman (MIG). Founding Principal, Berkeley, California (1980). Multidisciplinary design, planning, community development, problem-solving firm (now 14 locations, 200 employees, nationwide).

HONORS AND AWARDS

Alexander Quarles Holladay Medal for Excellence awarded by NC State Board of Trustees – the highest recognition of NC State faculty achievement. 2021.

NC State, Gertrude Cox Award for Innovative Excellence in Teaching and Learning with Technology, with Dr. Nilda Cosco, Dr. Muntazar Monsur (NLI postdoc), and DELTA Team (Arthur Earnest, Benjamin Huckaby, Jakia Salem). For *360 Environment and Behavior Immersive Tool* (360-EBIT). 2018.

NC State, Lifetime Achievement Award, Department of Parks, Recreation and Tourism Management (PRTM), in recognition of international leadership and advocacy for children's play, design research, longstanding support of public parks, and collaboration with PRTM. 2016.

NC State Outstanding Extension Service Award to NLI. 2003.

NC State, Alumni Distinguished Graduate Professorship Award (multiple nominations, College of Design). 2006, 2020.

NC State, Alumni Outstanding Research Award (multiple nominations, College of Design). 2011, 2017, 2019.

NC State, Faculty Research Award. College of Design. 1998.

North Carolina Governor's Community Service Award. Office of the Governor, State of North Carolina. 1992.

American Horticultural Society, Jane L. Taylor Award, NC State, Natural Learning Initiative nominated. 2020.

Patrick Geddes Visiting Fellow. School of Architecture and Landscape Architecture, University of Edinburgh. 2015.

Environmental Design Research Association, Active Place Design Research, First Place Award. "Where and Why People Walk in a Neo-Traditional Neighborhood." Robin Moore, with Evrim Demir (PhD in Design student, NC State University) and Diaan Van Der Westhuizen (M.Arch, NC State University, 2004; PhD, University of Michigan, Ann Arbor, 2010; now Professor, University of the Witwatersrand, South Africa). 2005.

Environmental Design Research Association, Design for Active Living Leaders Award. Interdisciplinary Design Studio. NC State University, professors Robin Moore, Frank Harmon, and Percy Hooper. Evrim Demir, TA, Ph.D. in Design student. 2005.

Environmental Design Research Association/Places Research Award. Growing Up in Cities international research team. 2002.

Environmental Design Research Association, Design Research Award. 1988.

American Society of Landscape Architects, Communications Award. Play For All Guidelines. 1988.

U.S. National Endowment for the Arts, Exemplary Achievement in Environmental Design Research. 1983.

American Horticultural Society, Great American Gardeners Landscape Design Award. 2001.

Honorary Member, American Society of Landscape Architects. Elected 2012.

Honorary Life Member, International Play Association. Elected 2006.

PROFESSIONAL DESIGN HONORS AND AWARDS

Nature PlayScape, Signature Designer. Arlitt Center for Education, Research, & Sustainability. Appointed by Campus Architect, University of Cincinnati. Rachel Robinson Design, Executive Landscape Architect. 2010.

Nature PlayScape, Cincinnati Design Honor Award. Arlitt Center for Education, Research, & Sustainability. Robin Moore, Signature Designer; Rachel Robinson Design, Executive Landscape Architect. 2016.

Moore Square Master Plan, City of Raleigh. Honor Award, Analysis and Planning, American Society of Landscape Architects. Chris Counts Studio, Brooklyn, NYC. Children's Play Design Consultant.

Brooklyn Bridge Park, NYC, Pier 6. Play Design Consultant, Michael Van Valkenburgh Associates (MVVA). Selected awards:

NYCxDESIGN Award for Outdoor Projects (2016); Municipal Art Society's MASTERworks Award for Best Urban Landscape (2014); American Planning Association New York Metro Chapter William H. White Award (2011); Rudy Bruner Award for Urban Excellence Silver Medal (2011); American Institute of Architects New York Chapter Urban Design Honor Award (2011); Municipal Art Society's Brendan Gill Prize (2010); National Park Service's Designing the Parks Honor Award for Master Plan (2010); Waterfront Center's Honor Award for Comprehensive Waterfront Plans (2009); American Society of Landscape Architects Honor Award for Analysis & Planning (2009); New York Magazine's Best Playground (2009).

Teardrop Park, NYC. Play Design Consultant, Michael Van Valkenburgh Associates (MVVA): General Design Honor Award, ASLA (2009).

Boston Children's Museum Plaza. Play Design Consultant, Michael Van Valkenburgh Associates (MVVA). Design Honor Award, ASLA (2008).

PATENTS & TECHNOLOGY TRANSFER

Play Value Assessment Tool. Cosco, N., Hestenes, L., Monsur, M., **Moore, R. C.**, Moore, L., & Sumrell, J. Method and System for Assessing Play Value of a Playground. US Patent No. 20170200100 A1. Washington, DC: US Patent and Trademark Office. 2016.

DESIGN ASSESSMENT/RESEARCH/TRAINING TOOLS

Environment-Behavior Mapping Tool (EBMAP). GIS-based, adaptable, multiscale mapping tool for observing human-environment interactions from rooms, sites, to cities. Developed by **Robin Moore** since 1977. With Nilda Cosco and Muntazar Monsur, developed fully digital version, launched 2018.

Childcare Outdoor Learning Environments Quality Tool (COLEQT). Portable, digital tool for assessing and enhancing quality of outdoor learning environments in licensed childcare facilities. COLEQT measures 13 items across four levels of quality. Developers: **Robin Moore**, Nilda Cosco and Muntazar Monsur (NLI post-doc). Version 1.3, 2017.

Outdoor Management of Learning Environments Tool (OMLET). Systematic, standardized method for assessing functional quality of outdoor learning environments to assist facility managers in making management/maintenance/investment decisions. OMLET measures 105 dichotomous items and related attributes. Developers: **Robin Moore**, Nilda Cosco and Muntazar Monsur (NLI post-doc). Version 1.0, 2015.

Preschool Outdoor Environments Measurement Scale (POEMS). POEMS contains 56 dichotomous items in five domains, each containing 1-4 categories. POEMS was developed by a NC State/UNC Greensboro team: Karen De Bord, Linda Hestenes, **Robin Moore**, Nilda Cosco & Janet McGinnis. Distributed by Kaplan. 2005.

TEACHING/GRADUATE EDUCATION

Seminar Courses

Human Use of the Urban Landscape. (DDN779/LAR579).

Advanced Interdisciplinary lecture and field research course introducing students to application of environment-behavior research methods to urban settings at site design scale. Seniors, masters, and doctoral students from multiple disciplines. PhD student TAs. Collaboration with Raleigh and Charlotte Urban Design Centers. Annually, since 1982.

Biophilic Design: Cultural strategies for saving the planet (LAR 582-019). Experimental seminar exploring design for human-nature interaction, including research, practice, and education, applied to design of buildings, landscapes, in the urban public realm. Since 2018.

Playground to Planet. (LAR 582-XX). Design and programming of settings for play, learning, and education for children, youth, and families. 1993, 1995, 1997.

Management and Marketing in Community Design. (LAR 582-XX). Theories and methods applied across multiple socio-physical contexts, with a focus on equity and engagement across age groups, lifestyles, and subcultures, applying incremental development processes. 1992, 1994, 1996.

Studio Design Courses

Introductory Landscape Architecture Studio (LAR 600).

Studio employed future site of Centennial Campus as design lab. 1982-1996.

Advanced Issues in Landscape Architecture (LAR 600).

Selected interdisciplinary design studios:

- **GREEN PLAYScape DESIGN FOR PARKS AND SCHOOLS:** Integrating manufactured and living systems for diverse play, stress-free fun, and comfort for adults and children. Interdisciplinary studio integrating landscape design and industrial design. With Bryan Laffitte, Industrial Design; Julie Sherk, Landscape Architecture. Nilda Cosco, PhD, Natural Learning Initiative. TA, Eric Filo, Ph.D. in Design student. Sponsored by PlayCore. 2008.
- **DESIGN FOR ACTIVE LIVING:** Interdisciplinary Design Studio, sponsored by Active Living by Design, School of Public Health, UNC-Chapel Hill. Design as a public health intervention. With Frank Harmon, Professor of Architecture, Percy Hooper, Professor of Industrial Design. Evrim Demir, Teaching Assistant, Ph.D. in Design student. NC State consultants: Dr. Nilda Cosco, Natural Learning Initiative; Dr. Tom Hoban, Sociology and Anthropology; Daniel Douglas and Elizabeth Alley, Raleigh Planning Department, Urban Design Center, City of Raleigh. 2006.
- **GROWING UP IN CITIES (GUIC):** U.S. contribution to the UNESCO international GUIC participatory action-research, urban design, and policy innovation program focused on youth. Conducted as a Landscape Architecture Studio, NC State University, with *Exploris Middle School*, Raleigh, NC. 2001.
- **WALNUT CREEK 2000:** How can landscape architects contribute towards environmental justice, cultural conservation, and ecological health through community ecological design? 1998. Studio products used by the late Dr. Norman Camp and the Partners for Environmental

Justice to promote the Walnut Creek Wetland Educational Park, and construction of the Norman and Betty Camp Walnut Creek Wetlands Education Center. Appointed member of Master Plan Citizen's Committee, 2017. 2019-on, with NLI, facilitating community design process of the first nature playscape in the City of Raleigh.

- **ECOLOGICAL URBAN DESIGN:** Designing healthy cities for people and biosphere. Conservation, restoration, regeneration, stewardship, and sustainability. What is the landscape architect's role and responsibility? With Michael Ortosky, MLA, soil scientist. 1996.
- **THE UNIVERSAL NEIGHBORHOOD.** Affordability, sustainability, usability. Windsong, Shallotte, NC: A place for all ages and stages. Interdisciplinary studio: landscape architecture and architecture. Sponsored by the Milliken Company and NC State Center for Accessible Housing. With Catherine Alguire, MLA. 1993.
- **ALBEMARLE THERAPEUTIC HORSE-RIDING CENTER.** Edenton, NC. Development of the first phase horse riding center, and long-term landscape development master plan. With Catherine Alguire, MLA. 1992.
- **WILLIAMS WOODS: MULTI-FAMILY HOUSING** for the University of North Carolina at Chapel Hill. Interdisciplinary studio, co-developed/instructed with Professor Peter Batchelor, Department of Architecture. Produced illustrated, color, publication 40 pp. 1992.

INVITED CONTRIBUTIONS AT NC STATE

LAR 582: Research and Strategic Thinking. Invited session: Evaluation of Environments in Use. Celen Pasalar, PhD, instructor. 2014-2020.

LAR 582: Design on the Land. Invited session: Landscape Design as a Health Intervention. Professors Gene Bressler and Charles Flink, instructors. 2016-2020.

PARTICIPATION IN COURSES AT OTHER UNIVERSITIES *National Universities (selected)*

University of Oregon, Eugene, Department of Landscape Architecture. Visiting lecturer/critic. 2015.

University of S. Florida, School of Public Health, with School of Architecture / Community Design, and College of Education. **Children's Village** interdisciplinary charrette: *Designing Places for Healthy Child Development.* NC State College of Design delegation of NLI graduate students in landscape architecture and industrial design, and PhD in Design, working with Texas A&M graduate students. 2004.

University of Illinois, Champaign-Urbana, Department of Kinesiology. New Active Green Environments Symposium. 2003.

University of North Carolina at Chapel Hill, School of Public Health. Co-developed interdisciplinary, grad. course, Active Living by Design: Impact of the Built Environment on Health, including unit on user needs delivered with Dr. Nilda Cosco and Ph.D. in Design students Marcelo Guimaraes and Arleen Humphrey. 25 students. 2003.

University of Virginia, School of Architecture, Department of Landscape Architecture. Visiting Critic. 2001.

International Universities (selected)

University of Edinburgh, Scotland, School of Architecture and Landscape Architecture. Landscape and Wellbeing MSc Course. Annual online session: Research Strategies and Methods Behavior Mapping. 2016–2020. Patrick Geddes Visiting Fellow. 2015:

- Environment-Behaviour Action Research. Interdisciplinary Seminar. PhD Program in Landscape Architecture.
- Interdisciplinary, evidence-based design education: Reflecting on Human Use of the Urban Landscape. Faculty seminar. PhD Program in Landscape Architecture.

Uppsala Campus, Swedish Agricultural University (SLU), Sweden. Division of Landscape Architecture and Departments of Psychology and Horticulture. Evidence-based, theory-informed, environment-behaviour design strategies in landscape architecture for sustainable urbanism. Visiting Lecturer (with Dr. Cosco). 2012.

Chiba University, Tokyo, Japan. Department of Landscape Architecture. Community-based design in landscape architecture. Visiting Lecturer. 2004.

University of São Paulo, Brazil. Graduate Faculty of Landscape Architecture and Urbanism. Education Program for Brazilian Professors of Architecture. Field course in user analysis and design programming of urban open space. Sponsored by International Federation of Landscape Architects (IFLA, Western Region) and UNESCO, “responding to the lack of educated landscape architecture teachers in the 200+ schools of architecture in Brazil.” Program graduate assistant, Nagirly Kessin, MLA, was visiting scholar to NLI, 2002–2003.

Alnarp Campus, Swedish Agricultural University (SLU), Sweden. Landscape Architecture Department seminar: Evidence-based design for children and families. 2002.

Chalmers University, Goteborg, Sweden, Department of Arch. Integrating User Needs in Environmental Design. 1999.

Danish Royal Academy, Department of Architecture, University of Copenhagen, Denmark; Landscape Architecture Program, Department of International Studies. 1998.

Universidad Del Valle, Cali, Colombia. Graduate Program in Landscape Architecture, Department of Architecture, Designing Cities for Children and Families, with Colombian Society of Landscape Architects. 1998.

Helsinki University of Technology (TKK, now merged with Aalto University), Faculty of Engineering and Architecture, Centre for Urban and Regional Studies, Espoo, Finland. Short course on design methods. 1997.

Universidad Católica, Santiago, Chile, College of Architecture.

- Design for early childhood outdoor learning environments. Visiting lecturer, 2015.
- Participatory methods in community design. Interdisciplinary post-grad in landscape architecture. 1995.

University of Buenos Aires, Argentina. Departments of Architecture and Industrial Design. Seminars on design for

children and families. 1996, 1997.

Universidad del Valle, Cochabamba, Bolivia. Faculty of architecture. Short field course: Community-based design for children and families. 1994.

Universidad Católica, Córdoba, Argentina. School of Architecture. Short course: Environment-behaviour field studies: Theories, tools, and techniques. 1993.

Universidad del Bío-Bío, School of Architecture, Concepción, Chile. Community Participation in Design and Planning. 1992.

University of Melbourne, Australia. Department of Landscape Architecture. Designing and Planning the Playful City. 1992.

University of Yokohama, Japan. Faculty of Childhood and Family Studies. Presentation to course in Early Childhood Education. 1990.

University of Belgrano, Buenos Aires, Argentina. School of Pedagogical Sciences. Participation in course: Leisure Time Planning. 1990.

Central University, Caracas, Venezuela. Graduate Landscape Architecture Program. Short Course: Urban Design for Children and Families. 1989.

Amman, Jordan, local universities and City of Amman, collaboration, co-directed Growing Up in Cities training workshop with participants from North Africa and the Middle East. Sponsored by UNESCO. With Eyyad Salem, doctoral candidate, NC State University Ph.D. in Design program, Conducting dissertation research in Amman. 2004.

TEACHING INNOVATION

Digital Tools for Teaching Environment and Behavior (E&B)

Concepts. Distance Education Learning Technologies. Targeting evidence-based E&B concepts of affordance, behavior setting, and Lynchian urban design concepts (pathway, node, landmark, edge, and district). Improving teaching effectiveness. Creating a ripple effect for improved quality of student-led investigations. Extending learning outcomes through digital teaching applications. DELTA Exploratory Grant. Co-PI. 2016–2017.

[360° Environment and Behavior Immersive Tool](#) (360 EBIT) – Gertrude Cox Award, 2018.

[Affordance and Behavior Setting](#) – video

[Behavior Mapping](#) – video

[Elements of Urban Form](#) – video

[Virtual Field Trip](#) – interactive tool

Other Innovative Teaching Media

PARKS FOR KIDS – video. **Robin Moore**. and Kofi Boone. Translates research findings from Parks for Kids for students, advocates and practitioners.

Community College Curriculum Development

Creating Outdoor Learning Environments for Young Children. Twelve modules (3 levels x 4 disciplines) developed for the NC Community College online resource library system. Targeted disciplines: early childhood education; food

and culinary arts; landscape design and horticulture; physical activity and active play. Nilda Cosco, PI; Robin Moore, Co-PI. Contributing developers: Andrew Fox, Carla Delcambre, Department of Landscape Architecture, NC State University. Consultant: Ronda Hawkins, Sandhills Community College, NC.

National

Design and Methods of Natural Experiments in Parks.

Active Living by Design. November 13, 2015.

Greening Schoolgrounds. Green Schools. US Department of Education. **Moore, R.** and Cooper, A. National Wildlife Federation. November 6, 2013.

Behavior Mapping Research Training

Arlitt Child and Family Research and Education Center, assessment of *Nature PlayScapes*. University of Cincinnati, multiple departments. Multiyear.

Loyola University, Chicago, Department of Psychology, assessment of *green schoolyards*. 2015.

Toledo Zoo, OH, *Nature's Neighborhood* assessment, Bowling Green University, Departments of Psychology and Education. 2010.

DOCTORAL DISSERTATIONS SUPERVISED (N=17, 1 ABD)

Daniel Jost (ABD, planned graduation, 2021).

Mohsen Ghiasi Ghorveh. 2017. *Does Street Quality Affect Transit Users' Route Choice?*

Jong Seon Lee. 2015. *The Influence of Urban Form and Design on Children's Physical Activity and Active Travel.*

Muntazar Monsur. 2015. *Does Child Care Architecture Matter? Investigating how Indoor-Outdoor Relations Influence Child Engagement and Teacher Motivation.*

Adina Cox. 2013. *Shared-use pathways located in natural settings within the urban context: how design characteristics affect use by children. \$105,000 fellowship from private industry supported tuition and living expenses. 2010-2013.*

Zahra Zamani. 2013. *Affordance of Cognitive Play by Natural and Manufactured Elements and Settings in Preschool Outdoor Learning Environments.*

Dwane Jones, PhD. 2012. *The Behavioral Impacts of Urban Street Modifications: A Case Study of East Boulevard in Charlotte, NC.*

Fariha Tariq. 2012. *Investigation of Incremental Housing Processes based on Microfinance: Implications for Policies and Practice.*

Kristín Thorleifsdottir. 2008. *Neighborhood design: associations between suburban neighborhood morphology and children's outdoor, out-of-school, physical activities.*

Mohammed Zakiul Islam. 2008. *Children and Urban Neighborhoods: Relationships between Outdoor Activities of Children and Neighborhood Physical Characteristics in Dhaka, Bangladesh.*

Yixiang Long. 2007. *Relationships between objective and*

subjective evaluations of the urban environment: Space Syntax, cognitive maps, and urban legibility. Co-chair.

Sudeshna Chatterjee. 2006. *Children's friendship with place: an exploration of environmental child friendliness of children's environments in cities.*

Evrin Demir. 2006. *The influences of site design on physical activity and social interaction in residential planned unit developments.*

Arleen Humphrey. 2006. *Physical environmental influences on the physical activity behavior of independent older adults living in continuing care retirement communities.*

Marcelo Pinto Guimaraes. 2005. *An assessment of understanding universal design through online visual resources and role-playing simulation exercises.*

Eyyad Salem. 2004. *Understanding Children's Environments: The Effect of Outdoor Physical Environments on Children's Activities and Quality of Life Within Al-Wihdat Palestinian Refugee Camp and Environs in Amman, Jordan.*

Cynthia Van Der Weile. 2004. *Understanding the Adoption of Sustainable Natural Resource Management Practices and the Role of Ecological Design Within the Milieu of Chronic Conflict and Political Instability: A Case Study of Smallholder Households in Nimba County, Liberia. (Co-Chair).*

NC State Doctoral Dissertation Committee Member (N=7) Doctoral External Examiner

University of Kuala Lumpur, Malaysia. College of Architecture.

University of Edinburgh, School of Arch., and Landscape Arch.

University of Sydney, College of Architecture.

University of Copenhagen, Faculty of Life Sciences, Forest and Landscapes.

PROFESSIONAL DEVELOPMENT OFFERINGS Professional Development Seminars, Symposia, and Institutes

Growing IN Place Symposium: Urban planning and design for children, families, and biodiversity. One-day professional development symposium. In partnership with North Carolina Museum of Natural Sciences, Raleigh. Subthemes vary each year. Co-organizer, speaker, facilitator. CEUs. Participants: 110-120. Annually since 2008. **67 CEUs awarded since 2013.**

NLI Design Institute: Creating and managing naturalized play and learning spaces for all children. Two-day professional development symposium combined with outdoor, interactive design workshops. In collaboration with NC Museum of Art (previous venue, NC Botanical Garden, UNC). Co-organizer and speaker. CEUs. Participants: 200-210. Annually since 2003. **1,112 CEUs awarded since 2009.**

Early Childhood Design Institute (ECDI). NC State University, College of Design. With Studio MLA, Brookline, MA. Relaunch of Child Care Design Institute, Harvard University Graduate School of Design. 2000 to 2006. NC State, 2017. **28 CEUs awarded.**

Nature Play Corps. Internship program. Co-instructor. With the National Wildlife Federation (NWF), supported by US Fish and Wildlife Service (USFWS). Three-week program conducted at USFWS Alligator River Wildlife Refuge, Manteo, NC. Nationwide competitive selection of 15 interdisciplinary interns. 2011.

Certificate Course in Therapeutic Garden Design. Chicago Botanic Garden. Member of ASLA-sponsored curriculum development committee, 2002. Five-day, professional course. Presenter 2003-2009. Participants: 25, annually.

Professional Development Programs

Early Childhood Outdoor Learning Environments (co-creator/instructor). For early childhood professionals. NC State Continuing Education, noncredit, online certificate program, offering CEUs. Launched in 2017. 360 certificates awarded (January 2020).

Designing Early Childhood Outdoor Environments (co-creator/supervising Instructor). For design professionals and design students. NC State Continuing Education, noncredit, online certificate program, offering CEUs. Launched in 2017. 67 certificates awarded (January 2020).

SPONSORED RESEARCH (recent, selected)

Supporting Sustainability of Health-Promoting Outdoor Environments in North Carolina Childcare Centers. Developing a comprehensive resource hub to respond to the challenge of scaling up creation and management of high quality early childhood outdoor environments in North Carolina. 2020-2022.-----**\$510,000.**

Childcare Outdoor Learning Environments as Active Food Systems: Effectiveness of the Preventing Obesity by Design (POD) Gardening Component. Co-PI. Five-year randomized controlled trial. USDA-NIFA-AFRI-005845. 2017-2021.-----**\$988,645.**

Assessing Colorado Regulatory Impacts and Design Tools to Increase Quality. North American Association for Environmental Education (NAAEE) with National Wildlife Federation. Survey of leaders in policy, regulation, and early childhood education regarding state-level childcare regulatory impact on outdoor learning environment quality. Storer Foundation. 2017-2018.-----**\$45,000.**

Measures & Metrics for Children's Engagement with Nature in Cities. Connecting Children with Nature in Cities. National League of Cities / Children and Nature Network. 2016-2017.-----**\$29,701.**

Nature Play and Learning Areas Design Guidelines. Broad range of urban and non-urban contexts to inform cross-sector practice and advocacy. US Forest Service with National Wildlife Federation. 2011-2014.-----**\$94,000.**

Impact of Landscape and Daylight on Microbial Communities in Elementary School Facilities and Potential Protection Against Atopy. Research Innovation, College of Design. Hu, Jainxin, PI, Moore, R, Co-PI, Cosco, N. Dunn, R. Hoppin, J. NCSU Research Innovation Seed Fund. 2014-2015.-----**\$24,750.**

PARKS FOR KIDS. Co-PI. Interdisciplinary research translation (children and family use of urban parks), for park and recreation systems, landscape architects, and urban planners. With NC State University Department of Parks Recreation and Tourism Management and Departments of Pediatrics and Exercise and Nutritional Sciences, SUNY-Buffalo. Robert Wood Johnson Foundation/Active Living Research, San Diego State University. 2011-2013.-----**\$25,000.**

PARKS FOR KIDS Video. Robin Moore, Kofi Boone, and Jacqui Harris, MLA (post-grad research assistant), Department of Landscape Architecture, NC State. 2013.

I-PARK: Investigating Parks for Active Recreation for Kids. PI. With Departments of Parks Recreation and Tourism Management, and Sociology and Anthropology, NC State University. Robert Wood Johnson Foundation/Active Living Research, San Diego State University. 2007-2008.--**\$205,000.**

Measuring Physical Activity Affordances in Preschool Outdoor Environments. PI. With UNC School of Public Health; Emory University, Rollins School of Public Health; Kansas State University, Department of Kinesiology; UNC-Greensboro, Department of Human Development and Family Studies. National Institute of Environmental Health Sciences (NIEHS). 2005-2007.-----**\$324,000.**

Investigating the Effect of Curricular and Environmental Change on Outdoor Physical Activity of Schoolage Children. PI. Buffalo Hospital Foundation / Allina Health System, Minnesota. 2005-2007.-----**\$42,000.**

Head Start Growth in the Outdoor World (HS-GROW). Co-PI. With Western Kentucky University, Training and Technical Assistance Services. Federal Department of Health and Human Services, Administration for Children and Families, Head Start Bureau. 2004-2005.-----**\$25,000.**

My Place by the Bay: How Can Designed and Prepared Outdoor Environments Stimulate and Support Science Learning of Children Three to Five? Co-PI. Bay Area Discovery Museum, Sausalito, California. National Science Foundation (NSF). 2003-2007.-----**\$177,000.**

Growing Up in Cities (GUIC). Participatory action-research/urban innovation training program for urban design/policy professionals. Focus on youth in low-resource communities in Argentina, Australia, India, Poland, Norway, South Africa, United Kingdom, United States (Oakland and Raleigh). Co-PI, Buenos Aires and Raleigh projects. Replication of 1972 study by Kevin Lynch, MIT. Co-trainer, Averroès professional development program, Amsterdam, Netherlands. UNESCO support; International Development Research Centre, Ottawa, Canada (C\$410,000; October Foundation, Buenos Aires, Argentina; NC State University Faculty Research Grant + off-campus scholarly reassignment. 1995-2000.

PUBLICATIONS

Google Scholar: Total citations: 4802; since 2015: 1950; h-index: 334; i10-index: 55.

Underscore: Former graduate student

Books

Moore, R. 2017. *Childhood's Domain: Play and Place in Child Development*. London & New York: Routledge (originally published, 1986); republished in Psychology Library Editions: Child Development, Volume 6.

Moore, R. with Cooper, A. 2014. *Nature Play & Learning Places. Creating and Managing Places Where Children Engage with Nature*. Raleigh, NC: Natural Learning Initiative and Reston, VA: National Wildlife Federation.

Konradi, S., Murphy, J., **Moore, R.** & Cosco, N. 2012. *Nature Play at Home: A Guide for Boosting Children's Healthy Development and Creativity*. NC State University, Natural Learning Initiative, with National Wildlife Federation. Alexandria, VA.

Moore, R. & Wong, H. 1997. *Natural Learning: The Life History of an Environmental Schoolyard*. Berkeley, CA: MIG Communications.

Brett, A. **Moore, R.** & Provenzo, G. 1993. *The Complete Playground Book*. Syracuse University Press.

Moore, R. (1993). *Plants for Play: A Plant Selection Guide for Children's Outdoor Environments*. Berkeley, CA: MIG Communications.

Moore, R., Goltsman, S. & Iacofano, D. (1992, Japanese Edition). *Play For All Guidelines: Planning, Design and Management of Outdoor Settings for All Children*. Tokyo: Kajima Institute.

Hardie, G., **Moore, R.** & Sanoff, H. (1989). *Changing Paradigms*. Proceedings, Environmental Design Research Association Conference 20/1989, School of Design, North Carolina State University.

Moore, R., Goltsman, S. & Iacofano, D. (1988, 2nd. Ed. 1993. *Play For All Guidelines: Planning, Design and Management of Outdoor Settings for All Children*. (Principal author). Berkeley, CA: MIG Communications. (ASLA Communications Award, 1988).

Peer reviewed journal articles

Stevenson, K. **Moore, R.** Cosco, N. Floyd, M. Sullivan, W. Brink, L. Gerstein, D. Jordan, C. Zapalatosch, J. 2020. A national research agenda supporting green schoolyard development and equitable access to nature. *Elem Sci Anth*, 8: 10. DOI: <https://doi.org/10.1525/elementa.406>

Islam, Z., **Moore, R.,** and Cosco N. 2016. Child-Friendly, Active, Healthy Neighborhoods: Characteristics and Children's Time Outdoors. *Environment & Behavior*. 48(5): 711-736. DOI: 10.1177/0013916514554694.

Moore, R. & Cosco, N. 2014. Growing Up Green: Naturalization as a Health Promotion Strategy in Early Childhood Outdoor Learning Environments. *Children, Youth & Environments*. 24(2): 168-191.

Smith, W., **Moore, R.,** Cosco, N., Wesoloski, J., Danninger, T., Ward, D., Trost, S., Ries, N. 2014. Increasing Physical Activity in Childcare Outdoor Learning Environments: The Effect of Setting Adjacency Relative to Other Built

Environment and Social Factors. *Environment & Behavior*. 48(4): 550-578. DOI: 10.1177/0013916514551048.

Cosco, N., **Moore, R.,** Smith, W. 2014. Childcare Outdoor Renovation as a Built Environment Health Promotion Strategy: Evaluating the Preventing Obesity by Design Intervention. *AmJHealthPromotion*. 28(3) Supp:27-32.

Baran P., Smith W., **Moore R.,** Floyd M., Bocarro J., Cosco N., and Danninger T. 2013. Park Use Among Youth and Adults: Examination of Individual, Social, and Urban Form Factors. *Environment & Behavior* 46(6): 768-800.

Floyd, M., Bocarro, J., Smith, W., Baran, P., **Moore, R.,** Cosco, N., Fang, K. 2011. Park-based physical activity among children and adolescents. *American Journal of Preventive Medicine*, 41, 258-265.

Cosco, N., **Moore, R.,** and Islam, Z. 2010. Behavior Mapping: A Method for Linking Preschool Physical Activity and Outdoor Design. *Medicine & Science in Sports & Exercise*. 42(3) 513-519.

Peer reviewed

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1. *Growing and Cooking Fruits and Vegetables at Childcare Centers* (LF-007-01)
2. *Creating Childcare Center Production Gardens* (LF-007-02)
3. *Growing Warm-Season Fruits and Vegetables in Childcare Production Gardens* (LF-007-03)
4. *Growing Cool-Season Vegetables in Childcare Production Gardens* (LF-007-04)
5. *Snacking and Cooking with Warm- Season Produce from Childcare Production Gardens* (LF-007-05)
6. *Snacking and Cooking with Cool- Season Produce from Childcare Production Gardens* (LF-007-06)
7. *Composting in Childcare Production Gardens* (LF-007-07)
8. *Vermicomposting in Childcare Production Gardens* (LF-007-08)

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- Non peer-reviewed professional publications**
- Moore, R.** 2010. *Pathways for Play*. Infusing play into pathway networks to encourage active lifestyles for children, families, and communities. Best Practice Guidelines. PlayCore, Inc. Chattanooga, TN. 2010
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- Moore, R.** and Cosco, N. 2010. *Move More North Carolina: A Guide to Creating Active Outdoor Play Spaces*. NC Department of Public Health: Physical Activity and Nutrition Branch and NC Office of Environmental Education.
- Moore, R.** *Kid's Dig Dirt! Green Paper*. 2008. With MIG, Inc. Washington, DC. Association of Children's Museums. (Monograph). http://www.naturalearning.org/docs/ACM_KidsDigDirt_GreenPaper.pdf
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- Moore, R.** (1992). Helping children to understand and love planet Earth: Environmental education and design for the next millennium. *International Federation of Landscape Architects Handbook* (IFLA), Paris.
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- Webinars**
- Creating a Supportive Network for Children's Outdoor Learning Environments.** NC Division of Child Development and Early Learning (DCDEE). Staff training. October 2010. Co-presenter. Participants: 400.
- Innovative ways to engage children with nature.** North American Association for Environmental Education. Co-presenter. February 28, 2017.
- Children and Nature Network.**
- Design and Methods of Natural Experiments in Parks.** Active Living by Design. November 13, 2015.
- Greening Schoolgrounds.** Green Schools. US Department of Education. **Moore, R.** and Cooper, A. National Wildlife Federation. November 6, 2013.
- Welcome to Planet Earth: Designing Nature into Early Childhood.** American Society of Landscape Architects – PPN Online Learning. **Moore, R.** and Cosco, N. March 6, 2014
- Playing & Learning in Nature: The National Guidelines.** National Wildlife Federation. US Fish and Wildlife Service. **Moore, R.** and Cooper, A. March 12, 2014.

Radio Broadcasts

Rick and Donna Radio Show. Interview, September 13, 2012

BAM! Radio Interview, November 21, 2011

KEYNOTE ADDRESSES, PRESENTATIONS, PANELS, WEBINARS & WORKSHOPS

Place, Program & Management: Practical, Action-Research Behavioral Methods for Improving Children's Intergenerational Environments. Researching With and For Children: Place, Pedagogy and Play. International Conference, University of Edinburgh. May 8-9, 2017.

Bringing Nature to Children Through Evidence-Based Design Thinking: Accessible neighborhoods, playful pathways, living playgrounds, community schoolgrounds. Co-presentation. Landscape & Life International Conference, Gubenkian Foundation, Lisbon, Portugal. 3-5 May, 2017.

Inclusive, nature-based strategic urban design policy: Playful pathway networks, playgrounds, parks, and community school grounds. Co-presentation. Lisbon Municipal Department of Planning and Accessibility. Lisbon City Hall, May 3, 2107.

Increasing Daily Doses: Naturalizing children's everyday built environments by design. Biophilic Design Leadership Summit. Serenbe, GA, April 9-11, 2017.

Nature-Based Strategic Urban Design Policy: Accessible neighborhoods, playful pathways, living playgrounds, community school grounds. Children & Nature Network International Conference. Cities and Nature Summit. Co-presenter. Vancouver, Canada, April 17-22, 2017.

"Let's Move" North Carolina Delegation. Invited to visit Michelle Obama's signature program at the White House. NLI represented by Professor Robin Moore and Dr. Nilda Cosco with NC healthy living organizations working with children and youth. December 5, 2016.

Healthy Childhood-Healthy Planet: Children's Play, Learning, and Bio City Policy. The Child and the New UN Sustainable Development Goals: Play as a Catalyst Element. International Play Association, São Paulo, Brazil. Keynote Speaker (remote delivery). Nov 29, 2016.

Engaging Young Children with Nature by Design. Early Childhood Education Workshop. Co-presenter. Pre-K 4 SA, North Center, San Antonio, Texas. Oct 29, 2016.

Nurturing the Natural. To inform, inspire, and instruct anyone who influences the life of a child. Gardens on Green Conference. Gainesville, GA. Sept 9-10, 2106.

Design of Outdoor Environments for Young Children. Two-Day intensive training workshop. Entrenamiento Intensivo para Diseñadores y Educadores. Diseño del Espacios al Aire Libre para el Desarrollo Saludable de los Niños. Co-presenter. Puerto Rico. Aug 25 & 26, 2016.

Cities Connecting Children to Nature: Measurement & Metrics. Interdisciplinary Workshop. Co-facilitator. Children & Nature Network International Conference. Cities and Nature Summit. Saint Paul, Minnesota, 24-28 May, 2016.

Evidence-Based Design: Driver of Social Investments in Early Childhood Environments (with Nilda Cosco, PhD, Director of Programs, Natural Learning Initiative and Jennifer Zuckerman, Director, Strategic Partnership, Blue Cross Blue Shield of North Carolina Foundation). Annual meeting Environmental Design Association (EDRA). Raleigh, NC, May 21, 2016. Plenary.

Research Triangle Outdoor Play and Learning Places (with Nilda Cosco, PhD, Director of Programs, Natural Learning Initiative). Annual meeting Environmental Design Association. Raleigh, NC, May 21, 2016. Mobile session.

Nature-Based Learning Research Network. University of Minnesota / Children and Nature Network. Retreat meeting. Nov. 14-16, 2016. St. Paul MN. Participant.

Applying Children and Nature Science to Design Thinking: How can children's interaction with nature be designed across the stages of child development? Annual meeting Environmental Design Association. Raleigh, NC, May 21, 2016. Poster.

Outdoor Learning Environment Best Practices in Action. Co-presenter. Smart Start Annual Conference. Greensboro, NC. May, 2016.

Campus Childcare as a Vanguard of Health Promotion. National Coalition for Campus Children's Centers. Hilton Head, NC. March 11, 2016.

Greening Childhood by Design: A Neighborhood Park Imperative. Parks and Greenspace Annual Conference. Park Pride. Atlanta Botanical Garden, Georgia. March 20-21, 2016.

Designing Urban Nature into Children's Play and Learning Places. City of Boulder Parks and Recreation Department. Boulder, CO, June 11, 2015.

Inclusive Design in the Public Realm: Children, Families, Everyone. *Colegio de los arquitectos y arquitectos paisajistas.* Annual Meeting. San Juan, Puerto Rico. June 20, 2015.

Reconnecting Children with Nature: Public and Educative Spaces (in Spanish). College of Architecture and Landscape Architecture, Catholic University, Santiago de Chile, August 20, 2015.

Designing Open and Accessible Public Spaces for Family Play & Child Development. Believe in Bristol. Bristol, VA & TN. October 2, 2015.

What if Kids Designed Cities? Nature, Play, and Discovery, in Urban Design. University of Oregon, John Yeon Center Lecture, Portland Oregon. October 29, 2015.

Naturalizing Childhood: Landscape Architecture's New Quest.

- University of Oregon, Eugene, OR. November 2, 2015.
- Landscape Architecture as an Early Childhood Health Intervention.** ASLA Children's Outdoor Environments PPN. Chicago, November 8, 2015. Dr. Nilda Cosco, co-presenter.
- Playing & Learning in Nature: The National Guidelines. Pennsylvania State Parks Association.** With Allen Cooper, NWF. March 24, 2014.
- Residential Neighborhood Design for Children, Families.** NC AIA, December 12, 2013.
- Design, management, and evaluation of outdoor environments for young children.** Two-day workshop. Children First, Aspen, CO. With Nilda Cosco. October 24-25, 2013.
- Behaviour Mapping: An Environment-Behaviour Research Method and More.** *Exploring Form, Content, Activity, and Shade.* Nature School Conference. Evergreen and International Schoolgrounds Alliance. Toronto, September 22-25, 2013.
- Research-based action on built environments lived in and used by children: Updates from NLI.** Children Youth Environments Intensive Workshop: Children's Play Places: Beyond Obesity. *Healthy and Healing Places.* Environmental Design Research Association Conference. Providence, RI. With Nilda Cosco. May 10-14, 2013.
- Reflection on outdoor design and system change in childcare center, food, local parks and pathway networks.** *Healthy and Healing Places.* Environmental Design Research Association Conference. Providence, RI. With Nilda Cosco. May 10-14, 2013.
- Urban Park Utilization: The Interaction of Routine Activities with Physical and Social Contextual Features.** *Healthy and Healing Places.* Environmental Design Research Association Conference. Providence, RI. With William R. Smith, Perver Baran, Myron F. Floyd, Jason Bocarro, Robin Moore, Nilda Cosco, and Tom Danninger. May 10-14, 2013.
- Pathways for Play, Words on Play, Playwork and Place Management.** US Play Coalition, Clemson, February 26-28, 2012.
- Keynote Address. Nature and Health Conference.** Forest and Landscape. University of Copenhagen, and Research Seminar. November 7 & 8, 2011
- Pathways for Play. Preconference Professional Development Seminar.** Active Minds. Healthy Nation. National Parks and Recreation Association. Annual Meeting. Atlanta, GA, October 31- November 2, 2011
- Designing Community Recreation Spaces for Health and Wellbeing: Applying the Research Evidence.** Continuing Education Session (interdisciplinary session with Lois Brink, University of Colorado; Myron Floyd, NC State, PRMTM; Philip Troped, Public health, Purdue; Jack Nasar, Planning and Architecture, Ohio State). ASLA Annual Conference. San Diego, October 30, 2011
- Playwork and Place Management.** North American Association for Environmental Education NAAEE. Annual International Conference. Raleigh Convention Center, October 14, 2011
- Playwork Professional Development Workshop,** Wetlands Education Center, Raleigh, October 12, 2011
- Early Science Learning Outdoors.** Research Symposium. Raleigh Marriot, October 11, 2011
- News from North Carolina.** Children and Nature Grassroots Leaders Conference. Children and Nature Network. San Diego, September 19-20, 2011
- International School Grounds Alliance Conference,** San Francisco, September 16-19, 21011
- Designing for Children In Nature.** Western Native Plants Conference. Western Carolina University, Cullowhee, NC. July 29, 2011.
- Promoting Play in North Carolina.** Organized and led North Carolina Delegation. International Play Association World Conference, Cardiff, Wales . July 4-7, 2011
- How to Write Successful Conference Abstracts.** PhD in Design Colloquium. 3-25-2011.
- Pathways for Play.** Keynote to special regional conference. Springfield, Missouri, Department of Parks and Recreation. 70 participants. 10-11-10.
- Designing Cities for Children.** Presentation to Conference on Children's Health and the Built Environment. University of Western Ontario, Canada. 200 participants. 6-28/7-1-2010.
- Children and the Built Environment: Design for Health.** Keynote. International Livable Cities Conference, Charleston, SC. 10-18/21-2010.
- Pathways for Play.** Presentation. Educational program session. National Recreation and Parks Association. Minneapolis, Minnesota. 50 participants. 10-26/28-2010.
- Pathways for Play.** Education session and one-day field workshop. National Trails Symposium. Chattanooga, Tennessee. 60 participants. 11-15/17-2010.
- Designing Pathways for Children and Families.** Webinar. American Trails Association. Open participation. 7-27-2010.
- Designing for Play in the City.** Video recorded presentation. US Play Coalition National Conference. Clemson University. 2-7-2011.
- Design for Children In Nature.** Keynote and Workshop. Québec Association of Landscape Architects Annual Conference. Montreal, 3-18/19-2011.

- Designing for Children and Nature.** North Carolina Children and Nature Coalition. Haw River State Park. 40 participants. 3-23-2011.
- Designing Environments for Healthy Childhood.** Presentation with Dr. Nilda Cosco. One-day Regional workshop. Connecting Children with Nature. Nemours Health and Prevention Services. Newark, DE. 12-7-2010
- Playwork and Play Environments.** Sarah Lawrence College, Child Development Summer Professional Development Program. Workshop and conducted field visit to Michael Van Valkenburgh and Associates design projects in NYC. 30 participants. 6-17/18-10.
- North Carolina Division of Child Development, Webinar.** Naturalizing Outdoor Spaces in Childcare Centers. 1-14-2011.
- North Carolina Division of Child Development, Webinar.** Design Guidelines for Naturalizing Childcare Center Outdoor Learning Environments. 4-6-2011.
- North Carolina Division of Child Development, Webinar:** Landscape Installation and Management. 6-18-10.
- Naturalizing Outdoor Learning Environments by Design.** Workshop. Onslow County Partnership for Children. Jacksonville Montessori School. 5-12-2011.
- Designing Urban Parks for Children and Families.** NC Parks and Recreation Directors Conference. NC State University Recreation Resources. Research Triangle Park. 30 participants. 1-26-2011.
- Design for Nature Play.** Keynote and workshop. Charlotte / Mecklenburg County Parks and Recreation. Children and Nature Conference. Charlotte. 3-7-2011.
- Campus Childcare Association.** Workshop on childcare design with architect and education director, Penn State University child development center project. Orlando, FL, April 9, 2010.
- Department of Landscape Architecture, Utah State University, Logan, UT.** Sustainable Landscapes Conference (student organized and administered). Keynote address. April 1, 2010.
- National Wildlife Federation, annual environmental educators meeting, SE region.** Houston, TX. Keynote address. Houston, TX, January 23, 2010.
- Houston Children and Nature Coalition launch.** Keynote address. Houston, TX. January 22, 2010.
- Research Methodology and Best Practice for Designing Healthy Child Environments.** Webinar Series and Literature review. Nemours Health and Prevention Services, Wilmington, Delaware. (October-December, 2009)
- PLAYSCAPES: Designing Outdoor Environments for Children and Families – Theory and Practice.** Four-month regional professional development course for landscape architects. Developed and presented with Dr. Nilda Cosco. Sponsored by University of Cincinnati, Urban Design Studio and Arlitt Child and Family Research and Education Center, and Cincinnati Nature Center. Series of training workshops, webinars, and design critiques. Participants: 25
- North Carolina Special Education Conference.** Workshop: Design outdoor Spaces for Children with Special Needs (with Nilda Cosco). Koury Center, Greensboro. November, 2, 2009.
- Outdoor Classroom Symposium, NC Botanical Garden, Chapel Hill.** Workshop on educational design of schoolgrounds with Chris Hilt, CLH Design; Katherine Peele, LS3P Architects; and Andrew Fox, NC State University. October 22, 2009.
- National Parks and Recreation Association, National Conference.** Education session: Designing Natural Playgrounds. October 14-16, 2009.
- ASLA National Conference.** Education session: Designing Natural Playgrounds. Chicago, IL. September 18-20, 2009.
- Design for Early Childhood Outdoors.** Training workshop. Minnesota Landscape Arboretum, August 26, 2009.
- Design for Children and Nature.** Minneapolis Parks Foundation, MN. Training workshop. August 25, 2009.
- Workshop on Urban Play.** PlayCore HQ, Chattanooga, TN. Workshop facilitator. July 31, 2009.
- Playwork in Nature Intensive Training.** NC Zoo, Asheboro, NC. June 4-6, 2009. Participants: 22.
- Using Design as a Preventive Health Intervention.** Instructor with Dr. Nilda Cosco. Professional development pre-conference intensive workshop. National Smart Start Conference, Greensboro, NC. May 4-6, 2009.
- Intensive Professional Training for Sari Barton, ASLA,** Tennessee Landscape Architect. April, 19, 2009. Raleigh, NC.
- Design for Children Workshop.** Chatham County Partnership for Chapel Hill, NC. Participants: 140. April, 6, 2009.
- Nature's Neighborhood: The New Children's Zoo.** Playwork Training Workshop – with David Becker, Brookfield Zoo and Brad Bieber, NLI, NC State University. Toledo Zoo, OH. March 20-21, 2009.
- Review of Outdoor Environments in NC Childcare Centers.** Childcare Commission of North Carolina, Division of Child Development, Raleigh, NC. February 11, 2009.
- Sensory Integration: Designing the Outdoor Environment to Meet Special Needs.** Instructor with Dr. Nilda Cosco. Montessori Special Education II. North American Montessori Teachers Association, Atlanta, GA. January 22-23, 2009.
- National Association for the Education of Young Children. Workshop: Designing for Natural Play and Learning:**

National Design Guidelines project. With Allen Cooper, National Wildlife Federation. Washington, DC, November 21, 2009.

Combating Childhood Obesity. Poster presentation: Preventing Obesity by Design. Robert Wood Johnson Foundation, invited conference, Atlanta, GA. November 17, 2009.

Children and Nature Network, National Leadership Conference. Keynote address and workshop on children and nature. Keystone, CO, September 9-11, 2009.

Play Summit. Clemson University, National conference presentation, Design for Play. June 15-16, 2009, Clemson.

Environmental Design Research Association. Pre-conference, one-day intensive workshop with colleagues from Finland, Canada, and US. Methods for researching children and family environment-behavior relations. Annual meeting, Kansas City, KS, May 27-29.

Reviewing the Evidence: Getting Outdoors in Nature Can Combat Negative Health Trends. & Design as a Health Intervention: Creating Compelling Natural Places for Childhood. Double keynote: No Child Left Inside: Restoring Nature to Early Childhood. 25th Anniversary Year Symposium – Celebrating Children and Nature Awareness Month. Ginter Botanical Garden, Richmond, VA. April 28-29, 2009.

Designing Nature Play Areas: Design Concepts and Principles. Professional development two-day workshop with Dr. David Sobel, University of Massachusetts. Mecklenburg County Park & Recreation Department & Partners for Parks. Colonel Beatty Park, Matthews, NC. December 9, 2008.

Designing for Healthy Childhood Development. Design for Children's Outdoor Spaces. Toyota Evergreen Learning Grounds Annual Forum (professional development). Toronto, ONT, Canada, November 13-15, 2008.

Designing Nature Into Playgrounds: Implementing Best Practices. Presenter. National Recreation and Parks Association, Pre-Conference Education Session. Baltimore Convention Center, Baltimore, MD. October 14, 2008.

Healthy Outdoor Play and Learning. Professional development design workshop. With Dr. Nilda Cosco and Julie Sherk, ASLA. Western Regional Outdoor Learning Environments Institute. Outside is In! – Play and Learn Outdoors. North Carolina Arboretum, October 2-4, 2008.

Designing Children and Family Outdoor Environments. Invited staff professional development session. Board of Trustees, Millennium Park and Chicago Children's Museum, IL, September 16, 2008.

Places For Play: Their Value For Children And Families. Natural Play Space Practitioners Professional Development

Summit. Lower Platte South NRD and Healthy Families Play Outside. September 11, 2008.

Welcome to the Planet: What if Landscape Architects Collaborated with Educators to Change the Schoolgrounds Paradigm! Presenter. Nature Smart Schools Symposium, College of Environment and Design, University of Georgia, April 24-25, 2008.

Green Design for Children and Families. Invited public lecture. College of Architecture/Industrial Design. Georgia Institute of Technology, Atlanta, April 8, 2009.

New life for an old concept: Community Gardens. Invited presentation. Advocates for Health in Action, Quarterly Meeting. March 24, 2009.

Designing Effective Outdoor Play and Learning Settings for Healthy Childhood Development. Presentation. Woods Charter School, Chatham County, NC. February 12 and March 25, 2009.

Urban Landscape Design for Healthy Child Development. Presenter. Symposium on Biophilic Design and Sustainability in the Urban Context. Greenbuild International Conference and Expo. Boston Convention Center, Boston, MA, November 19-20, 2008.

Landscape Design for Healthy Child Development. Children in Nature: Healthy Development by Design Conference. Keynote. Minnesota Landscape Arboretum, University of Minnesota, November 6, 2008.

National Children and Nature Research Summit. Participant. Co-Sponsored by Yale University, University of Minnesota and the Children & Nature Network. Minnesota Landscape Arboretum, University of Minnesota, November 5, 2008.

Reconnecting Children with Nature Through Design of Natural Free Playscapes. Invited public lecture. The 2008-2009 Charles and Ralph Dury Science Lecture Series. Reakirt Auditorium, Cincinnati, OH. September 18, 2008.

Designing Children and Family Outdoor Environments. Invited staff professional development session. Board of Trustees, Millennium Park and Chicago Children's Museum, IL, September 16, 2008.

Planning Places For Play: Design For Natural Play and Learning. Natural Play Space Design Charrette. Lower Platte South NRD and Healthy Families Play Outside. September 12, 2008.

Places For Play: Their Value For Children And Families. Invited public lecture. Lower Platte South NRD and Healthy Families Play Outside Lincoln, NB. September 11, 2008.

Environment-Behaviour measures of urban neighbourhood park use by children. Organized Symposium: Health-Promoting Outdoor Play: Methods for Environmental Assessment. With Drs. Nilda Cosco and Zaki Islam, NC State University; Drs. Fredrika Mårtensson Swedish Agricultural

University, and Cecilia Boldemann Centre for Public Health & Karolinska Institute, Sweden. International Association for People and Their Surroundings Biennial Congress: Urban diversities, biosphere and well-being: Designing and managing our common environment. Sapienza and Lumsa Universities, Rome, Italy, July 28 – August 1,

Great Schools by Design. American Architectural Foundation Program, Regional School Design Institute. Facilitated two-day meeting. NC State University, Raleigh, NC. October 29-30, 2007.

The Educational Potential of Children's Physical Environments. Faculty of Human Kinetics. Lisbon Technical University, Lisbon, Portugal. November 2006.

Healthy Childhood/Healthy Planet: Design for Playing and Learning in Nature. Keynote address. Renewing a Sense of Wonder. Environmental Educators of North Carolina Annual Conference. Fort Bragg, November 2-5, 2006.

Playing and Learning: Creating Healthy, Educational, Fun Outdoor Environments for Children and Families. Invited presentation. Brevard Zoo, FL. October 30-31, 2006.

Landscape Design as a Tool for Change. Keynote address. Why is Nature Education Crucial? How Can it Serve as a Force for Positive Change? Connecting the World's Children with Nature: Working Forum on Nature Education for Young Children, Arbor Day Farm, Nebraska City, Nebraska. October 16-19, 2006.

Grounding the Child in Body and Mind: Designing the Outdoors to Fulfill the Montessorian Philosophy. Keynote address. How to Naturalize Your Playground: Senses, Perception, and Spontaneous Activity. Workshop. North American Montessori Teachers Association Conference. Opening Up Avenues of Perception Meeting the Needs of the Whole Child and Whole Curriculum. St. Louis, MO, October 13-15, 2006

Design of Urban, Naturalized Childhoods. Invited presentation. Invited presentation. National Dialog On Children and Nature: A Connection for the Health and Well-being of Our Children. National Conservation Training Center, Shepherdstown, West Virginia. September 8-10, 2006.

Design for Active Childhoods. Presenter, workshop leader. Annual Early Childhood Outdoors Design Institute. NC State University, College of Design. August 3-5, 2006.

The Challenge of Planning and Designing Sustainable Neighbourhoods for Healthy Middle Childhood. Keynote address. International Conference on Planning and Designing Healthy Public Outdoor Spaces for Young People in the 21st. Century. University of West England. The Watershed, Bristol, UK. July 5-7, 2006.

Design for Outdoor Childhoods. Child Design Institute. Graduate School of Design. Harvard University, Cambridge, Massachusetts. June, 2006.

Childhood Experience of Nature IN the Human Built Environment. Invited presentation. Bringing Buildings to Life: A Symposium on the Theory, Science, and Practice of Biophilic Building Design. Yale University School of Forestry and Environmental Studies. Whispering Pines Conference Center, West Greenwich, RI, May 10-12, 2006.

Design for Successful Human Development: Environments that Afford, Healthy, Fun, Outdoor Science Experiences for Young Children. Invited presentation. Association of Children's Museums. Boston, MA, April 24, 2006.

Children, Youth, and Environments: Knowledge for Design for Knowledge Affordances, Behaviour Settings, and Territories for Healthy, Joyful Development. Keynote address. PEOPLE IN PLACE IN PEOPLE. First International Symposium on Environment, Behaviour & Society. University of Sydney, Faculty of Architecture, Environment, Behaviour & Society Discipline. February 9-11, 2006.

Landscape Architecture for Montessori Places for Outdoor Learning. Keynote. North American Montessori Teachers Association Conference. Montessori Places: Stepping Stones to Society and the World. Atlanta, GA, January 28-29, 2006.

Design of Child-Friendly Neighborhoods. Invited presentation. Community Conference. East Baltimore Development Corporation. Baltimore, Maryland. November, 2005.

Recent Design Research Findings in Children's Environments. Seminar, Department of Landscape Planning. Swedish Agricultural University (SLU), Alnarp, Sweden. November, 2005

Designing Nature into Children and Family Spaces. Professional Education Session. Co-presenter. American Society of Landscape Architects (ASLA) annual Conference, Ft. Lauderdale, Florida. October, 2005.

Designing Outdoor Spaces for Children's Health and Wellbeing. Invited presentation. Annual Design for Healthcare Certificate Course. Chicago Botanic Garden, Glencoe, Illinois. October, 2005.

Design for Children in Nature. Presentation. Brevard Zoo, Legislators Day. Brevard, Florida. September, 2005

The Play Profession: Responding to the Globalisation of Childhood. Invited presentation and Discussion Session. Play: Learning for Life—Education with Creativity and Diversity. 16th IPA World Conference (International Play Association). Berlin, Germany. Organized post-conference invited seminar on the same topic, Fraunsee, Austria. July-August, 2005.

Design for Outdoor Childhoods. Child Design Institute. Graduate School of Design. Harvard University, Cambridge, Massachusetts.

Design for Active Childhoods. Presenter, workshop leader. Annual Early Childhood Outdoors Design Institute. NC State University, College of Design. May, 2005.

Building the Knowledge Base in Children's Environments: Doctoral Research at North Carolina State University.

Organized Symposium with Sudeshna Chatterjee, Ed Salem, Celen Pasalar, Cynthia Van Der Weile, and Nilda Cosco). Participated in Workshop: Quality of Life and Active Living Design, co-presented paper Where and Why People Walk in a Neo-Traditional Neighborhood, Evrim Demir (Ph.D. in Design student, North Carolina State University), Robin Moore (Professor, North Carolina State University, College of Design), and Diaan Van Der Westhuizen (Ph.D. in Architecture student, University of Michigan Ann Arbor, M.Arch, NC State University, 2004). Children's Environments Research and Design: Diverse Perspectives, Diverse Outcomes. Co-organized Pre-conference One-day Intensive. Presented paper: Urban Childhood Outdoors: Summary of Recent Research with Particular Reference to the Sedentary Lifestyle Crisis. EDRA (Environmental Design Research Association) annual conference, Design for Diversity, Vancouver, Canada, April 27 – May 1, 2005.

Playful Cities: The International Growing Up In Cities

Programme. Keynote address. International Institute for Child Rights and Development, University of Victoria. Child and Youth Friendly Vancouver Conference, Vancouver, April 26, 2005.

Preschool Children's Experiences Outdoors in Child Care Settings: Measurement and Influence of Outdoor

Quality. Co-presented poster. Society for Research in Child Development (SRCD), Biennial Meeting, April 7-10, 2005, Atlanta, GA.

Fit for Life. Invited panelist. My Health is your Business: Making Healthcare Work in North Carolina 2005 Emerging Issues Forum. NC State University. February 2005.

Starting Young: Design as a Preventive Health Measure.

Designing Communities for Healthy Living Conference. College of Design, NC State University, Raleigh, February, 2005.

Active Living Research Annual Conference, Invited Participant, San Diego State University, CA. February 25-26, 2005

Reconnecting Children to the Outdoor Environment:

Design for Infant / Toddler and Preschool Natural Learning Environments. Workshop presenter. National Smart Start Conference, Greensboro, NC, January 2005.

The Educational Potential of Children's Physical

Environments. Faculty of Human Kinetics. Lisbon Technical University, Lisbon, Portugal. November 2004.

Education in Landscape Architecture for Professors of Architecture in Brazil.

International Federation of Landscape Architects (IFLA Western Region) / UNESCO. Faculty of Architecture, Landscape Architecture, and Urbanism. University of São Paulo, Brazil. User analysis and design programming of urban open space (Module 1 of a 4-Module program). Program aim "to respond to one of the most crucial problems of the profession in the countries of Central and South America and the lack of

specifically educated teachers of landscape architecture in the more than 200 schools of architecture in Brazil."

Children's Zoos: Designing for Community Education.

Presenter. American Zoological Association. Annual Meeting, New Orleans, November 2004.

Design of Outdoor Environments for Healthy Childhood.

Workshop presenter. National Association for the Education of Young Children, North Carolina Conference. Greensboro, November 2004.

Urban Childhood Outdoors: Retrospect and Prospect for Evidence-Based Practice and Action Research on a Critical Issue of our Time.

Invited paper. OPENspace People Place Conference. Edinburgh College of Art, UK. October 2004.

Evaluating Universal Outdoor Design: Kids Together Park Post Occupancy Evaluation.

Workshop. OPENspace People Place Conference. Edinburgh College of Art, UK. October 2004.

Growing Up in Cities in the Asia-Pacific Region. Keynote address to the founding meeting of the Japanese Association for Children's Environments, Tokyo, Japan. May 2004.

Design for Children and Nature. Keynote address to the tenth annual forum on community education for the Kogi River, City of Kaizaka, near Osaka, Japan. May 2004

Design Principles for Designing Natural Environments for Children. Wild About Play Conference. University of Gloucester, UK. July 2004.

Designing Places for Healthy Child Development: Community Processes and Evidence-Based Setting Systems.

Keynote address. Children's Village Conference: Designing Environments for Infants and Young Children, University of S. Florida, School of Public Health in partnership with the School of Architecture and Community Design, and the College of Education. Facilitated charrette session with educators and community sponsors.

NC State Delegation included Natural Learning Initiative Education Specialist, Nilda Cosco (keynote address) and graduate students Alice Reese (Landscape Architecture), Marcia Brooks (Industrial Design), and Sudeshna Chatterjee and Sheila Akinleye (Ph.D. in Design program) January 2004.

Green Play. Co-presenter, one-day international seminar for the international launch of the IKEA Children's Range of "active furniture." Almhult, Sweden. May, 2003.

Design for Active Childhoods. Co-presenter at public event for the Canadian launch of the IKEA Children's Range of "active furniture." Toronto, Canada. August, 2003.

New Active Green Environments Roundtable. Invited participant. Department of Kinesiology, University of Illinois, Champaign – Urbana. November, 2003.

Evidence-Based Community Design for Active Living: Design Research Strategies for Improving the Physical Activity Potential of Outdoor Environments. Invited presentation. ALPES Annual Grantees Meeting, Decatur, Georgia. January 8, 2003.

Design for Active Living: Transdisciplinary research methodologies for investigating physical environment and activity correlates of daily routine behavior settings. Invited presenter. Symposium organized with Richard Killingsworth, James Sallis, and Richard Wener. Environmental Design Research Association Annual Conference: People Shaping Places Shaping People. University of Minnesota, Minneapolis. May 21-24, 2003.

Measuring the Quality of North Carolina Childcare Outdoor Environments. Poster Session with Nilda Cosco. Environmental Design Research Association Annual Conference: People Shaping Places Shaping People. University of Minnesota, Minneapolis. May 21-24, 2003.

Program Development Through Play. Staff development workshop. Co-presenter. The Eden Project, Bodelva, Cornwall, UK. August 15, 2002.

Design of Outdoor Environments for Young Children. Co-presenter. The Institute for Child Care Design, Harvard University Graduate School of Design, presenter. June 17-21, 2002.

Children, Play and Design. Co-presenter. Staff development training, IKEA-Sweden, Ålmhult, Sweden. May 27-30, 2002.

Assessment of Spaces for Healthy Child Development. Annual Smart Start Conference 2001. Greensboro, Koury Center, NC. January 28–30, 2002. (Co-presenter with Assessment Scale Research Team—see above).

Assessing Outdoor Learning Environments for Healthy Childhood. NC State University Cooperative Extension Service. Statewide Extension Agent Training. North Raleigh Hilton. March 21, 2002.

Landscape Design as Preventive Medicine for Children. Department of Horticultural Sciences, NC State University. Faculty/student lecture series. February 25, 2002.

Trees and Kids. Arbor Day Celebration. Blanchie Carter Discovery Park. Southern Pines Primary School. April 16, 2002.

Growing Up in Cities (GUIC): The Challenge of International Action Research on Children's Environments. Research Symposium. College of Design. April 17, 2002.

Conservation of the Earth Through Landscape Design. College of Design Lecture sponsored by the Design Council. April 3, 2002.

Playful Outdoor Environments: Design for Young Children. Paper presentation. AND Designing the School

Environment: Getting it Right Inside and Out: Design for Natural Learning. Symposium presentation. Environmental Design Research Association (EDRA) Annual Conference. University of Edinburgh, Scotland, July 3-6, 2001. (Co-presenter with N. Cosco).

Designing Natural Spaces for Healthy Child Development: The Natural Learning Initiative. Reaching Every Child. Annual Smart Start Conference 2001. Greensboro, NC. January 8–10, 2001. (Co-presenter).

The Value of School Grounds. Keynote address. A Garden in Every School Symposium: Cleveland Botanical Garden. Cleveland, OH. January 26, 2001. (Co-presenter with N. Cosco).

Design of Outdoor Learning Environments for Healthy Childhood. NC State University Cooperative Extension Service. Statewide video-conference (ten sites). The Natural Learning Initiative / NC State Department of Family and Consumer Sciences. February 6, 2001.

Outdoor Learning Spaces. Workshop on Innovative Curricula, Innovative Environments. NC State University. February 13, 2001.

Boosting Childhood: Exploring Nature Through Play. Evenings with the Experts Series. Children and Nature: Making the Connection. Chicago Zoological Society/Brookfield Zoo. April 5, 2001.

Preserving Community Character: Involving Children, Youth, and Families Through Design. NC ASLA Annual Conference: Preserving Community Character. Southport, NC. April 27, 2001.

Design for Natural Play and Learning. The Child's Right To Play: A Global Approach. International Conference. American Association for the Child's Right to Play. Hofstra University, New York, May 3-5, 2001. (Presented with N. Cosco).

Aquaticus Popularis: Planning, Design, and Conservation of Play and Learning Resources for Childhood Development of Aquatic Consciousness. Lunchtime address. 2nd Annual Conference on Nonpoint Source Pollution Information & Education Programs. Illinois and US EPA with Chicago Botanic Garden. May 14–17, 2001.

Children's Gardens: The Way Ahead. Keynote address. Celebrating Children's Gardens in the New Millennium: Design is the Key. 8th. Annual National Youth Garden Symposium. Disney World, Florida. June 8–10, 2000.

Developing A Child-Centered Outdoor Before-and-After School Program. St. Alcuin Montessori School, Dallas, Texas. With Nilda Cosco. Feb 17-18, 2000

Turning Playgrounds into Learning Grounds. 2000 National School Boards Association, 60th Annual Conference, Orlando, Florida. With Dr. Russo, Superintendent of Schools, Moore County Schools; Mary Scott Harrison, Principal SPES; Bruce Cunningham, Parent and Project Coordinator; Ann Petersen, Parent and Teacher, and Robin

Moore, Professor of Landscape Architecture, NC State University. April 1-4, 2000

A Waterside Park for Children. Lincoln Park Community Association, Jersey City, NJ. May 13, 2000

Playing in the Natural Environment: Preliminary Evidence of Its Contribution to Children's Health. Symposium on the Environment and Children's Health. Pediatric Academic Societies and American of Pediatrics Joint Meeting. Boston, MA, May 12-16, 2000. May 14-15, 2000

Knowing Where You Live/Knowing Who You Are: School Grounds and Play Yards as Participatory Vehicles for Individual and Community Development on Planet Earth. Paper & Presentation. Childwatch International / UNESCO Research Symposium on Children's Participation in Community Life. University of Oslo, Norway. June 26-28, 2000. (Co-presenter with N. Cosco).

School Grounds as Learning Environments. Diversity in Conversation Symposium. The Conservation Fund. Delray Beach, Florida. July 22, 2000. (Co-presenter).

Research-Based Design of Children's Outdoor Environments. 4th. Eurocongress on Other Ways of Learning. European Institute for Outdoor Education and Experiential Learning. Centre for Outdoor and Environmental Education. Rimsforsa, Sweden. September 9 – 13, 2000.

Developing an Earth-Bound Culture Through Childhood Participation. Conference: People, Land & Sustainability: A Global View of Community Gardening. University of Nottingham, UK. September 13-16, 2000. (Co-presenter with N. Cosco).

Creating Natural Learning Environments for Children. One day workshop. Society for Children and Youth of British Columbia, Vancouver, Canada. October 14, 2000. (Co-presenter with N. Cosco).

A Multidisciplinary of Approach to Design for Natural Learning. Parks and Recreation Department, City of Edmonton, Canada. Full day workshop. October 16, 2000. (Co-presenter with N. Cosco).

Design for Early Childhood. NC Association for the Education of Young Children. Annual Conference. Winston-Salem. October 26 – 27, 2000. (Co-presenter).

Public Involvement in Park Master Planning. NC Recreation and Parks Association Annual Conference. Raleigh, NC. November 4 – 6, 2000. (Co-presenter with J. Ramsey and M. Presnelle-Jennette).

Community-Based Parks and Recreation Master Planning. NC Recreation and Parks Association Annual Conference. Raleigh, NC. November 4 – 6, 2000. (Co-presenter with G. Rodriguez).

Children Immersed in Nature: A Universal Design Imperative

for a Successful Millennium. AND Childhood Habitats in the City: Working with Young People to Design a More Friendly, Green Urban Environment. World Congress on Environmental Design for the New Millennium. Seoul, Korea. November 9-13, 2000.

Designing School Grounds as Childhood Habitats for Play, Learning, and Cultural Development. Keynote address. Rethinking the Outdoor: Creating Meaningful Spaces for Learning. Harvard University, Arnold Arboretum. Jamaica Plain, MA. December 2, 2000.

Play and Culture in the Parks. Training Workshops for Battery Park City Parks Conservancy. New York City. With Nilda Cosco. May 13-14, 2000

Universal Design for Inclusion. Presentation. Children Playing and Learning. Boston Architectural Center, Boston, Massachusetts. May 12, 1999

Design for Natural Learning. Keynote presentation at the inaugural Betsy M. Campbell Gardening with Children, Teachers' Symposium. Clemson University, S. Carolina, Department of Sociology, Landscapes for Learning Initiative. May 14, 1999

Major Themes of Joost van Andel's Work. Presentation to Colloquium in Memory of Joost Van Andel. Environmental Design Research Association (EDRA), Annual Meeting. Orlando, Florida. June 3-5, 1999

Natural Learning: Towards a Sustainable Planet through Play and Education. Keynote address and Playing at the Zoo: Explore! A Child's Nature. Co-presented workshop with Nilda Cosco and Richard Cohen, Brookfield Zoo, Chicago. Both to the XIV IPA World Conference: The Community of Play. Faculty of Human Kinetics, Technical University of Lisbon, Portugal. June 21-25, 1999

Natural Learning in the Context of Montessorian Educational Philosophy. Presentation to The North American Montessori Association Summer Retreat on the Land-based Middle School. Cleveland, Ohio. July 6-8, 1999

Exploratorium Outdoor Garden Design Workshop. The Exploratorium, San Francisco. July 23-25, 1999

Nature-based Preschool and the Children's Forest. Participation leader, design charrette and development of design program. Fontenelle Forest Association, Bellevue, Nebraska. Aug 7-9, 1999

Therapeutic Gardens for Children: Design Guidelines. Presentation to preconference symposium on Therapeutic Garden Design. ASLA Annual Meeting, Boston. Sep 11-12, 1999

Designing Outdoor Environments for Children. Presentations to Clemson University Recreation Short Course and to two classes in Department of Parks, Recreation & Tourism Management. Clemson University. Sep 27-28, 1999

Education Through Design. Training course, documentation and evaluation of program to introduce design education pedagogy into the NC public school system at middle and high school level. US National Endowment for the Arts, NC Arts Council (1992-93).

South American Technical Assistance and Training

Program. Launched in Argentina, Bolivia, and Chile (1989). Community design processes for professional designers, delivered through universities and professional associations. NC State University College of Design Faculty Grant, 1988. North Carolina-Cochabamba, Bolivia, Partners of the Americas, travel grant, July 1989.

SERVICE

Scientific Advisory Committees

Science of Nature-Based Learning. University of Minnesota and the Children and Nature Network. National Science Foundation. 2015-2018.

STEM in the Landscape. Arlitt Center for Education, Research and Sustainability, School of Education, University of Cincinnati. Sponsored by National Science Foundation. 2016-2018.

International Multidisciplinary Review Panel. FORMAS Swedish Research Council. Proposals for new research program on children's mental health. Stockholm, 2011-2012.

Scientific Advisory Meetings (selected)

Healthy Kids / Healthy Futures Summit. Sponsored by Nemours Healthcare. Washington DC. 2016.

Deriving and Applying Behavioral Design Principles

to Foster Active Living and Healthy Eating. National Collaborative on Childhood Obesity Research (NCCOR) interdisciplinary workshop, sponsored by Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), Robert Wood Johnson Foundation (RWJF), and the U.S. Department of Agriculture (USDA). Washington, DC. 2016. Final report.

Service to Professional Membership Societies

North Carolina Children and Nature (NC CAN!). Co-founder/organizer/member. Statewide meeting facilitator. NC Zoo. 2009 & 2010.

Environmental Design Research Association (EDRA). Member 1972-on, Board of Directors, 1983-1986 (Chair 1986).

American Society of Landscape Architects (ASLA). 2002-on. Cofounder, Children's Environments Professional Practice Network, 2010. Elected Honorary Member, 2012.

American Horticultural Society (AHS). Member. Educational Advisory Board, 1997-2001.

North American Montessori Teachers Association (NAMTA). Professional development event presenter, member, 1997-on.

Children and Nature Network (CN&N). National Advisory Board Member, 2008-continuing.

Children Youth and Environments. Cofounder, 1974. Member, editorial advisory board.

International Play Association (IPA). International Board of Directors. 1977-1999. International President 1990-99. Communications Editor, 1976-1999. Founder, *PlayRights* magazine (1987), Editor (1987-1999). Elected Honorary Life Member, 2006.

International School Grounds Alliance (ISGA). Member, Leadership Council. 2012-on.

International Association for People-Environment Studies (IAPS). Member, 1972-on.

Professional Advisory Assignments (selected)

North Carolina Early Childhood Obesity Prevention Task Force. North Carolina Institute of Medicine. 2011-2013.

North Carolina Department of Public Health. Eat Smart Move More. Advisory Committee. 2011-2013.

City of Cambridge, Massachusetts, Design competition juror. Connect Kendall Square—Open Space Design Competition (all 3 stages). 2014-2015.

International Federation of Landscape Architects (IFLA). International Student Design Competition, Jury. Barranquilla, Colombia, 1991.

Service to Community Initiatives & Organizations (selected)

City of Raleigh, Parks, Recreation, and Greenways Advisory Board. 1996-2001.

City of Raleigh, Pullen Park Master Plan Citizen's Committee. Chair, 2001-2002.

City of Raleigh, Walnut Creek Wetland Park Master Plan Citizen's Committee. Member, 2017.

People for Parks, Wake County, NC. Board of Directors 2005-2013.

North Carolina-Cochabamba, Bolivia, Partners of the Americas. Board of Directors, 1989-1992.

PROFESSIONAL PRACTICE

Design Consultation (selected)

Pease Park-Kingsbury Commons, Austin, TX. Ten Eyck Landscape Architects. 2017.

Child Life Terrace, Shawn Jenkins Children's Hospital, MUSC, Design review. Perkins & Will North Carolina, Atlanta, GA. 2017

Cook County Nature Preserves, Chicago Land. Nature Play Guidelines. MIG, Denver, CO. 2017.

Children's Garden, Lauritzen Gardens. RDG Planning & Design, Omaha. 2017.

Children's Garden. Desert Botanical Garden, Phoenix. Design review and programming. Didier Design Studio, Fort Collins, CO. 2016-2017.

A Gathering Place for Tulsa. Play Design Consultant, Michael Van Valkenburgh Associates (MVVA). 2014-2017.

Martin's Park, Children's Wharf, Boston, Play Design Consultant, Michael Van Valkenburgh Associates (MVVA). 2016-2017.

Jacob Ballas Children's Garden Extension, Singapore National Parks, National Botanical Garden. Landscape design for play and learning of children and youth. 2012-2017.

Moore Square Master Plan. City of Raleigh. Chris Counts Studio, Brooklyn, NYC. Children's Play Design Consultant. Analysis and Planning Honor Award, ASLA (2013).

Brooklyn Bridge Park (Pier 6), NYC. Play Design Consultant, Michael Van Valkenburgh Associates (MVVA).

Arlitt Child Development Center, Outdoor Play and Learning Area. Signature Designer. Appointed by Office of Campus Architect, University of Cincinnati, OH. 2010.

Teardrop Park, NYC. Play Design Consultant, Michael Van Valkenburgh Associates (MVVA): General Design Honor Award, ASLA (2009).

Boston Children's Museum Plaza. Play Design Consultant, Michael Van Valkenburgh Associates (MVVA). Design Honor Award, ASLA (2008).

kidZone, NC Zoo, Asheboro, NC. Play and Learning Design Consultant. Frank Harmon Architect. 2010-2014.

Kidzu Children's Museum, Chapel Hill, NC. Play and Learning Design Consultant.

Parks and Recreation Master Plan. City of Durham, NC. Project lead principal, MIG. 1998.

Hamill Family Play Zoo, Brookfield Zoo, Brookfield, IL. Design team. MIG. Opened, 2001. Exhibit Award, Association of Zoos and Aquaria (2002). 4.5 million visitors 2001-2016.

DESIGN ASSISTANCE, OUTREACH, ENGAGEMENT (selected)

Dorothea Dix Park—Plaza and Play. City of Raleigh, NC. With Michael Van Valkenburgh & Associates.

Black Creek Watershed Project. Kingswood Elementary School, Raleigh, NC. Co-PI with Carla Delcambre. Water Resources Research Institute (WRRRI), NC State University. Collaboration with the project team to provide technical assistance on the design of water quality and conservation features and the use of those features for education. 2016-2018.

Dorothea Dix Park Master Plan. City of Raleigh, NC. With Michael Van Valkenburgh & Associates.

Development of School Grounds for Outdoor Play, Learning, and Education. Sidwell Friends School, Washington, DC. With Andropogon, Landscape Architects, Washington, DC.

Natural Play Area. Forest Park Forever, St. Louis, MO, in collaboration with the City of St. Louis. Goal: to create a

nature play and learning area in historic Forest Park to engage children and families with the natural world, and promote good health, learning, recreation, and enjoyment by the St. Louis community. With Interboro Partners, NYC. 2015-2017.

Outdoor Play and Learning Environments. Pre-K4SA (San Antonio, Texas, Pre-K initiative). North Education Center, Outdoor Learning Environment (OLE), Expansion and Quality Enhancement: Program. NLI conducted stakeholder design workshops, developed a design program, and created schematic designs to support the educational program and needs of children and adults. Further technical assistance contributed to attaining a high quality OLE. 2016-2017.

Outdoor Play and Learning Environments. Howard Levine Child Development Center, Renaissance West Community Initiative, Charlotte, NC. NLI engaged stakeholders in a collaborative process to create a design program, schematic layout, and management plan to support the center mission and philosophy of learning. 2016-2017.

Children's Play and Learning Spaces. Wing Haven Gardens & Bird Sanctuary, Charlotte, NC. NLI engaged Wing Haven trustees, stakeholders, garden staff, local educators, prospective funders, and interested community leaders in a collaborative process to create a design program, schematic layout, and management plan for the extension and development of spaces for children's play and learning. 2015-2016.

Outdoor Play and Learning master plan. The Parish School, Houston, Texas. NLI worked with school administrative and teaching staff, children and families, board of directors, school committee(s), and the Margaret Noecker Nature Center, to create a design program and a schematic master plan, including outdoor play and learning settings that reflect the needs of children with language learning challenges. 2014-2016.

School Grounds for Outdoor Play, Learning, and Education. Salisbury Academy (SA), Salisbury, NC. NLI engaged stakeholders, including teachers and students, in a collaborative process to create a design program, schematic layout, and management plan for the development of the school grounds as an outdoor learning environment to support the school mission and philosophy of learning. 2015-2016.