NC STATE

NC STATE Design NLI NATURAL LEARNING INITIATIVE

naturalearning.org



The Edible Schoolyard, *Greensboro Children's Museum, NC. Families stroll the looping pathways, learn about urban permaculture, make friends with chickens (red coop), learn fruit and vegetable gardening, harvest produce, cook, and enjoy eating together.*

For more than 25 years, NLI's Mission, "Creating environments for healthy human development and a healthy biosphere for generations to come," brings research-based landscape design thinking, community engagement, and practical knowledge to underserved communities in North Carolina and beyond. Regenerated, biophilic demonstration sites exemplify best practices for placemaking and bio-equity in daily life, to support natureconnectedness across the lifespan.

NLI was launched in 2000 by Professors Robin Moore DipArch., MCP, Hon. ASLA, and Nilda Cosco, PhD, Affiliate ASLA, NC State University, College of Design.

Engaging children with nature, beginning in infancy, promotes healthy human development through caring for nature and each other across the lifespan.

Global treaties, policies, and action plans frame dedication to the human right to a sustainable, ecologically viable, "one health," local-to-global environment.

NLI's social-ecological model places childhood and family development at the center of community and governmental engagement aimed at conserving and regenerating biodiverse, inclusive, equitable, healthy urbanization.

Intersections of built environments and public health in ecologically barren communities support regeneration of healthy places, where social life and human wellbeing can flourish.

DICA **Ecological concepts –** diversity, interrelationships, change, and adaptation – inform temporal scales of design thinking, including climate change adaptation.

EB **Environment-Behavior constructs –** affordance, behavior setting, and spatial range – unite research and design thinking with units of analysis across built-environment contexts and pre-post studies.

NbS **Nature-based solutions** integrate experiential learning with nature in places used by people, including childcare facilities, schools, parks, greenways and streets, residential neighborhoods, community centers, public libraries, museums, botanical gardens, and zoos.

NLI's theory of change applies evidence-based design thinking to everyday naturalized places that impact human development (aka *biophilic design*). Applied research feeds knowledge creation and its translation into design education and design practitioner teams.

Collaborating with local, state, national, and international strategic partners supports evidence-informed policy and program resources for healthy community development.

Participatory design programming integrates user needs, community objectives, and cultural expression in built forms that include diverse, intergenerational populations.

Research, design programming, and impact assessment tools include community surveys, environment-behavior mapping, mental mapping, user-taken photos, interviews, and focus groups – all citizen-science friendly.

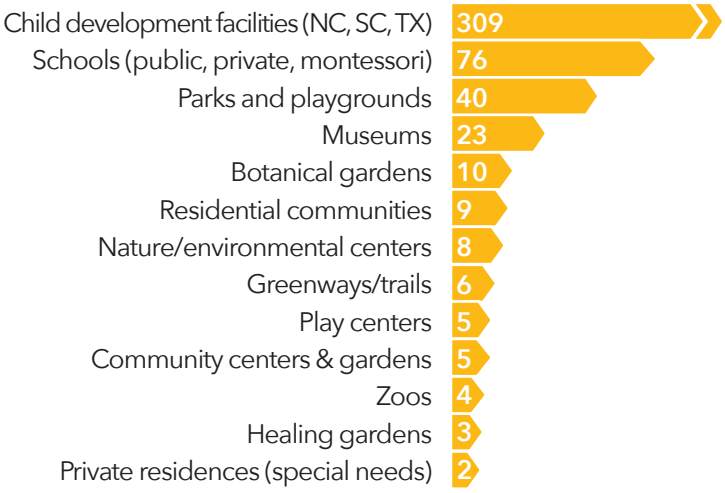
NLI's web-based knowledge hub serves researchers, educators, practitioners, policy makers, and activists across disciplines and sectors with scientific articles, research briefs, policy reviews, best-practice guides, literature, and YouTube media.

Demonstration sites activate research, evaluation, documentation, and training functions, using empirical and visual evidence to deliver cross-sector, collective impact in child and family systems.

Professional development programs deliver transdisciplinary content to diverse professions, including landscape architecture/design, architecture, urban planning/design, public health, parks and recreation, and early childhood, K-12 and higher education.

DESIGN ASSISTANCE DELIVERED

Built environment demonstrations



TOTAL DESIGN PROJECTS: 498 or 25/year

PROFESSIONAL DEVELOPMENT DELIVERED

Certificate Programs & Courses (online)

- Professionals trained: **2,500**
- CEUs awarded: **1,291**

18 Design Institutes (annual, in-person lectures & workshops)

- Participants: **2,345**
- CEUs awarded: **414**

12 Growing IN Place Symposia (design for urban childhood)

- Participants: **1,027**

4 Gatherings & Tours (Childcare Demonstration Sites)

STUDENTS TRAINED

(engaging creativity & passion for learning)

- MLA, MCS, MADTECH, & MGXD: **60+**
- PhD in Design: **16+**
- Post Doc: **4**

CENTER FOR DISEASE CONTROL (CDC) TECHNICAL ASSISTANCE PROVIDER

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NLI ACTIVITY AREAS



NLI received the 2023 EDRA Organization Award (Environmental Design Research Association), recognizing NLI's contribution to creating environments responsive to human needs.

NLI Activity Areas deliver design assistance, research, evaluation, professional development, information dissemination, and communications. Comprehensive projects combine all areas in multiyear programs.

Over 25 years of evolution as a university-based unit has scaled-up NLI's delivery of cross-sector, transdisciplinary knowledge, evidence-based models, and expertise to multiple audiences to increase impact on urban/rural environmental policies.

NLI STRATEGIC DEVELOPMENT PHASES

Design Assistance | Research & Evaluation | Professional Development | Resource Dissemination

