**Headline:** How the Built Environment Is Damaging Children’s Connection to Nature

**Teaser:** Profit-driven urban development has disconnected us—particularly children—from the wilderness. The effects are unhealthy.

By Teresa Coady

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**[Article Body:]**

The free-roaming range of a child has been reduced dramatically in only a few generations. About three generations ago, most children were free to travel the full range of their town, but they rarely went beyond it except when accompanied by adults. Two generations ago, children biked and walked freely within a few miles of their homes through developed and wild areas, often spending days without supervision. One generation ago, most children were restricted to biking or walking a few local blocks and playing in their backyards, and they were generally supervised for their safety.

The current generation of children is mainly limited to the home and garden and allowed only supervised, organized play outdoors. This restriction in range limits children’s ability to explore their world without fear and to understand the complexity of the real world. Just as the child’s exploring range has been restricted, so has the child’s personal mobility range. The parent is obliged to “walk” the child in a stroller, or they might run or toddle off the narrow sidewalk into the fast traffic rumbling down every street.

Parents working on tasks cannot rely on community supervision and are forced to sit children in front of screens indoors to occupy their attention. Parents often have no wild, natural environment nearby for children to play in, so they move the child from the stroller to a manufactured play structure.

Parents often must get everywhere by car, which keeps the child strapped in a car seat. When the parents have more than one child, it is much harder to protect the children, so the mobility restrictions increase.

**A Global Issue**

This is more than just a North American problem. A 2004 [study](https://pubmed.ncbi.nlm.nih.gov/14738795/) led by Professor John Reilly at the University of Glasgow and published in the Lancet showed that three-year-old Scottish children spent an average of only 20 minutes a day actively mobile. The rest of the time was spent in mobility-restricting strollers, beds, highchairs, or baby seats—usually in front of a digital screen.

Every parent knows that children need good nutrition, adequate rest, and lots of free time to play outdoors in the fresh air and sunshine to thrive. How could we have forgotten the importance of this last piece in our universal child-rearing conventions? Scientific [evidence](https://jamanetwork.com/journals/jamaophthalmology/article-abstract/2588252) links less time playing outdoors in the sunlight with poor eyesight, specifically myopia. In China and East Asia, as many as [90 percent](https://retinatoday.com/articles/2019-sept/myopia-a-global-epidemic#:~:text=Myopia%20is%20a%20major%20public,have%20sight%2Dthreatening%20pathologic%20myopia.) of high school graduates are near-sighted. The incidence of myopia in the Americas has increased by around [66 percent between 1971 and 2004](https://jamanetwork.com/journals/jamaophthalmology/fullarticle/424548). A 2023 [study](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10144975/) led by Bryana Banashefski at the Icahn School of Medicine at Mount Sinai and published in the Journal of Clinical Medicine found that two out of every five Americans have myopia.

What is going on? [Research](https://pubmed.ncbi.nlm.nih.gov/27918775/) published in JAMA Ophthalmology indicts sunshine, or the lack of it, for permanently changing the shape of children’s eyeballs. Children spending less time outdoors and experiencing less sunshine grow into myopic adults. I was the only person, child or adult, in my family to need glasses. I was also the least outdoorsy so I can relate to this. How did the exploration and mobility range of children worldwide become so restricted in just a single generation?

**Profit Trumps Nature**

Much of the blame can be laid on the design, development, and construction industry. To increase profit, we have densified our cities to the point where children have no safe, natural places to play and no wild areas to escape to. In many cases, kids are restricted to a couple of lots dedicated as park areas that consist of grass and a bit of manufactured play equipment. The inevitable consequence of this lack of safe and engaging outdoor play space is that children are kept home for their own safety and learn to play quietly with technology.

But the issue is more profound than this. As we remove large semi-wild parklands and play areas from our communities, we restrict the opportunity for our children—and ourselves—to explore and develop a comfort level with these environs. When we are not comfortable with wild nature, we discourage our children from exploring it. So, we have created a positive feedback cycle.

In many cities, [children cannot name even one local bird](https://richardlouv.com/books/last-child/). We do not protect what we cannot name. As we reduce the areas of wild nature in our cities because of development pressure, we increase our fear of it and reduce our children’s time in the remaining wilderness areas. As we reduce our own and our children’s playtime in wild nature, the benefit and use of these spaces diminishes, and the protection of these spaces is reduced, allowing their unopposed destruction and development as urban areas. Because of this strange and unhealthy positive feedback, we find ourselves valuing wild lands less, even as they become much scarcer.

**Dismal School Statistics**

The children themselves are telling us through dismal school statistics about escalating special needs (now 10 percent of all children, per the [2023 World Happiness Report](https://happiness-report.s3.amazonaws.com/2023/WHR+23.pdf)), poor physical fitness, and lowering academic scores, that there is something terribly wrong with the way we have designed their world. For instance, daycares are set up to provide safe sleeping and playing areas inside. Still, outdoor play areas are often hard surfaces with intricate manufactured play sculptures, usually fenced off and opening onto parking areas.

What are these children imprinting? As we work toward a solution, we must avoid getting swayed by the arguments favoring structured sports over unstructured playtime. The hard, regular surfaces required for many sports are anathema to the creative soul. These spaces do not provide the mystery and magic needed by our exploring young minds, nor do they encompass the myriad creatures caught up in even the smallest ecosystem for the child to connect with and develop empathy for.

Just like our children, we adults feel refreshed when we catch the early morning light filtered through trees, walk green tree-lined streets filled with birdsongs to work, gaze out at changing skies and landscapes from our place of employment, take breaks in beautiful gardens, walk home and indulge in a stroll after dinner, and fall asleep to the night sounds of tiny insects, breezes, and rustling leaves.

This idyllic imaginary day was the norm for most families only a generation or two ago. For most of us, it is a dream we are unlikely to manifest. We wake to the traffic sounds and smells of a busy city, take crowded transit or a busy freeway to work, eat our lunch at our desk or in a crowded cafe, take transit or the freeway home, and then stay indoors in front of a screen and fall asleep to the noise of traffic and the city. For those who live in the suburbs, the home environment might be a little more connected to nature’s sights and smells, but the long commute significantly offsets the overall benefit.

**Quantifying Poor Urban Design**

Some programs can help quantify the effects of poor urban design. For example, the [WELL Building Standard](https://standard.wellcertified.com/well) developed by the [International WELL Building Institute](https://www.wellcertified.com/) (IWBI) “is a performance-based system for measuring, certifying, and monitoring features of the built environment that impact human health and well-being, through air, water, nourishment, light, fitness, comfort, and mind.”

Another resource is the [Health Impact Assessment (HIA) Resource and Toolkit Compilation](https://www.epa.gov/healthresearch/health-impact-assessment-hia-resource-and-tool-compilation), a set of tools, guidelines, and processes used to evaluate the potential health effects of a policy, program, or project before implementation, helping decision-makers maximize positive health outcomes and minimize adverse effects. These programs tell us that without access to walkable districts, adults grow fat and develop diabetes and heart disease. They also tell us that adults develop respiratory diseases without the fresh air created by natural environments.

Further research is connecting the dots, but we know that dealing with the stress of constant crowds creates a [fight-or-flight response](https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response) in some adults. Chronically high levels of cortisol, released by the adrenals in response to stress, can lead to cancer, heart disease, and a host of other conditions, including a mental breakdown. Adult mental illness is an epidemic in our developed nations and is triggering a hard look at the way we force ourselves to live now in our so-called modern world.

**Unnatural Green Building Trend**

How did we arrive at this point where so many of our children have no exposure to nature and where time spent in a wild environment is just a memory for most adults? Where we are stressed almost from birth by roads and construction, unrelieved by trees and gardens?

In my career, I have resisted designing places I would not live or work in myself, but there is constant pressure on all designers to make living spaces smaller and to eliminate wild areas. There is additional pressure to widen roads and build deeper parking garages. We design apartments that are too small, condos that have no privacy, communities with no access to green space, schools without safe walking paths and natural playgrounds, hospitals that are completely mechanistic and inhuman, universities without daylit classrooms and adequate natural retreat spaces, and office buildings with no connection to nature at all. Our builders, developers, engineers, and architects have convinced us that we cannot afford any other option. We have come to believe this as individuals and as communities.

The truth is that we have all allowed an untenable situation to develop without questioning it. Before exploring what it means to address these issues, it is necessary to understand what natural development is not. I see an ironic trend toward unnatural green buildings worldwide. This happens when we use a mechanistic approach to design something “naturally.” We are so lost in a mechanistic design paradigm that we confuse imitating nature with constructing in harmony with it.

My personal experience with this was when I visited Singapore for a World Architecture Festival event. Once a year, architects from across the globe gather in a selected city to celebrate the world’s best architecture. In 2012, [Gardens by the Bay](https://en.wikipedia.org/wiki/Gardens_by_the_Bay) in Singapore [won](https://www.dezeen.com/2012/10/05/cooled-conservatories-at-gardens-by-the-bay-by-wilkinson-eyre-wins-world-building-of-the-year/) the [World Building of the Year Award](https://www.dezeen.com/2012/10/05/cooled-conservatories-at-gardens-by-the-bay-by-wilkinson-eyre-wins-world-building-of-the-year/). It consists of a massive island formed from dredged sand; the island features gardens built on themes from around the world. The highlight of the gardens is a series of artificial “trees,” which light up at night for a sound and light show. The trees are major steel constructions featuring a walkway connecting the canopies. Somewhere in the middle of the “tree canopy,” there is a bar from which you can view the Singapore skyline with a drink in your hand.

While all of it is quite over the top, my disconnected moment resulted from a queer juxtaposition. The open gardens are spectacular but uncomfortable in the heat of the day, so they are mostly used at night. It was a hot day. I decided to go to the enclosed and cooled part of the gardens. I visited the rainforest garden to refresh myself just before my long flight home. I wandered through artificial waterfall mists, walked up a constructed mountain, meandered through transplanted rainforests, and arrived at the geodesic dome on top of it all.

Then I walked back down and flew home. The next day, my husband and I walked through a mountainside rainforest in our community for a refreshing stroll along a river. I glanced up, momentarily disoriented, and looked for the dome. In crowded Singapore, the diorama may feel like the real thing and even momentarily fool a rainforest hiker like me, but it is not real.

Many so-called sustainable buildings have so much technology operating them that the real intent and original feel of the design are lost in the complexity of the mechanical solution. Award-winning buildings designed as machines in organic shapes to imitate opening shells or wings are also not natural.

This intensely fabricated nature ultimately has a disturbing effect on the adult human psyche, especially on the open and creative mind. We must be clear about our objectives and protect our natural systems. We must provide daily access to real nature in all communities to restore our true health and vitality. However, this is not the direction we are going in.

The [eVolo Skyscraper Competition](https://www.evolo.us/category/competition/) invites futuristic architectural solutions to overcrowding, global warming, and environmental disasters. In 2024, the first-place winner was an alarming vision of massive glazed buildings “slicing” through a city to add density. While optimistically seeking to restore the Yellow River, the second-place winner proposes mechanical arms printing modular units on both sides of the river, using river silt that is converted to raw material for 3D printing. The third-place winner proposes a massive inverted skyscraper 1 kilometer below the ocean surface to act as a carbon scrubber and artificial reef builder.

It seems that young imaginations around the world are exploring the future as a fabricated realm of artificial skyscrapers floating or supported above the earth. The apparent disconnect with natural physics is astounding. While it is true that these are only thought experiments and not to be taken seriously as future construction projects, they nevertheless represent a current fascination with extremely artificial environments and a rejection of wild nature.

Imposing such exotic construction on an already stressed and fragile planet—and our stressed and fragile psyches—is not the solution. We must turn this ship around now and move toward elegant, simple solutions in harmony with natural forces. This is the only way to comprehensively address the real and complex problems of neighborhood planning for the urban populations we anticipate in the next century.

**How We Might Rewild Our Cities**

Contact with nature nurtures us into a state of relaxation that supports our health and the development of our intelligence, sociability, and creativity. When we remove contact with nature from our world, we live a circumscribed existence that increases anxiety and fear and compromises creativity. Social tensions arise when we are too crowded without the relief provided by parks and waterways.

Architects, developers, designers, builders, urban planners, and policymakers should ensure that buildings are connected to natural light, views, and sounds. We must build garden-based communities with real links to waterways and wild nature. We must redefine the postindustrial city. For a happier and healthier future for our children, we must rewild our built environments.