

Helena van Vliet Architect, LLC

Restorative Biophilic Design



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The Nature of Buildings

“All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts....The Land Ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land.” ~ Aldo Leopold

All those years I've tucked my children in to sleep, it's brought me joy to know that not 12 inches away many more little heads were nestled in for the night: House Finches, Sparrows, Dark-Eyed Juncos, Red-Breasted Nuthatches and the tiniest of Chickadees; tucked into ivy-covered walls, protected from the winds by sturdy vines on the leeward side of our house.

A Living Wall, a sort of cliff dwelling, refuge and prospect pure.

Our fine-feathered friends build their nests here, seek shelter high above the ground, safe and dry under the protective roof.

Just as we do.



We are now awakening to the troubling fact that many native bird species are in serious decline.



A Living Habitat

A vegetated wall has dimension, depth, relief. It's a living habitat. It turns out, what's good for them is good for us as well: façade plant life produces much needed oxygen and moderates indoor temperatures, keeping interiors cooler in summer and warmer in winter. In fact, vegetated buildings aid cooling of urban heat island environments.

Think of it as air-conditioning for cities.

Vegetation mutes unwanted road noise while filtering dust and pollution. Additionally, co-habiting with plants and birds permits us beauty and wonder, enriching our lives with daily small encounters, experiences and moments of unanticipated joy.





Below: The Bosco Verticale in Milan, Stefano Boeri Architect. This vertical forest building produces hundreds of pounds of oxygen every day. If all the trees were laid flat on the ground, the forest would cover an area of nearly two acres.



Buildings are Bird Habitat

Since the dawn of time, humans have cohabitated with birds. It turns out this arrangement strengthens our immune system and **reduces stress**.

We are now awakening to the troubling fact that many native bird species are in **serious decline**. Among other destructive factors, buildings can be responsible for **massive bird deaths**. This begs the question: can a building be called 'sustainable' if it's a bird-killer by its very design? Many a LEED-rated building is clad in reflective glass, lethal to large quantities of birds, even more so if illuminated at night.

What if we re-imagined buildings, building facades and roofs to once again be **nesting sanctuaries** for our feathered friends? The physiological benefits for us, too, are well-researched, measurable and plentiful.

Façade-habitat-greening, vertical gardens, vertical forests, habitat roofs are an obvious way to encourage, support and protect birdlife in built environments. Expanses of glass should always be considered with great care, considered from a bird's point of view, such that fly-through illusions are avoided and **bird-safe glass** is employed where necessary.

In brick buildings, nesting cavities in the form of 'Bird Bricks' can be introduced, even retrofitted.





Click image to view video on building bird brick houses.

Bird Bricks boast thermal properties that will help to keep bird eggs safe. Different opening sizes and types are available, depending on species. Bats are welcome too! BirdSafe Glass Options are plentiful and range from plain to etched to all manner of design.



*Glaspro bird safe glass:
Beautiful patterns made from
nature.*



*Click images for details on
Glaspro.*



What We See



What the Birds See

Ornilux bird safe glass. Click images for details.

Where Birds sing, we know we are safe.

Healthy **birdsong cover** is an excellent indicator of a neighborhood's overall quality of life.

"What makes birdsong so special is that it **relaxes people** physically but stimulates them cognitively," says Julian Treasure, author of *Sound Business* and chairman of noise consultancy The Sound Agency. Birdsong creates a state he calls "body relaxed, mind alert."

There's no doubt that birdsong positively affects our brains. "People find birdsong relaxing and reassuring because over thousands of years they have learnt when the birds sing they are safe, it's when birds stop singing that people need to worry," Treasure says. "Birdsong is also nature's alarm clock, with the dawn chorus signaling the start of the day, so it stimulates us cognitively."



Ancient dovecote Wartburg, Germany.

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