

# Helena van Vliet Architect, LLC Restorative Biophilic Design



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**Spring, 2018**

## **The Soft Edges of the New Vernacular**

With the help of a gentle spring rain, Nature's miracle is generously filling the blanks left by a bitter Pennsylvania winter. Brown muddy patches explode with daring green shoots. Bare branches, left for dead by weeks of punishing frost, ice and snow, have transformed themselves into lush green adventures, tiny blossoms poking forth, welcoming bees. Contours become smooth and richly layered. It smells like fresh green and early blooming trees. Silhouettes soften against the sky. Sounds soften, too.

As would our buildings...if only we'd let them.



2 Spring



Summer



Fall



Winter

## **Nature's Design: Seasonally Dynamic Facades**

*"The incorporation of vertical & horizontal greenery creates a new aesthetic language for our buildings. Plantings are dynamic, organic material that can bloom, flower, fall, die back, and grow. Just think of the dynamism that gives the façade!" ~ Anthony Wood, Exec Dir. Council on Tall Buildings and Urban Habitat*

I've come to realize, that the most relevant design vernacular of our time, the one addressing our most pressing challenges - from carbon reduction & carbon absorption, to urban heat mitigation & particulate pollutant reduction; from strengthening compromised immune response to alleviating circadian disruption and chronic stress - is that of



buildings, which surrender their preoccupation with form and instead become a canvas for life.

Buildings as hills or mountains.

Buildings as vertical forests.

Buildings as arbors and wild flower meadows.

Buildings that grow food.

Buildings as bio-diverse habitat.



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## Buildings as Bio-Diverse Habitats

*"Air-purifying Plants will use the grid on the facade to grow along and, after some time, nature will be the main design-language." ~ Penda Architects*

The very skin of the buildings becomes a living, breathing biosphere...feeding wildlife, birds and pollinators... as they feed us. We know, that 3 out of 5 bites of the food we eat depend on the help of pollinators. We know, pollinators are in serious decline. We know avian residents are struggling to find nutritious food in our cities. Let's build buildings that feed life. Let's support one another.

Nature paints with a soft brush. Buildings that nurture life are Biophilic buildings.

*"Maintaining biodiversity is important...the more species live in a park, the greater the psychological benefits to human beings..." - Richard Louv, The Nature Principle*





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## Archi-Bio-Tecture: Building Healthy Habitats

*"Whereas the primary reason of architecture has been to protect man against nature, the contemporary city strives to reconcile human beings and their natural ecosystems. The garden is no more placed side-by-side to the building; it is the building! The architecture becomes cultivable, edible and sustainable." ~ Vincent Callebaut, Architect*

Carbon, the element that threatens to smother our world is also, in different forms, the fundamental building block of life. CO<sub>2</sub> can be fertilizer. In addition to reducing our carbon footprint, we must pull carbon from the air and restore it to the earth.

To that end, our buildings must become carbon sponges and oxygen producers. Along with parks, the forested skin and meadow roofs of our buildings must become the air-conditioning and air-filtration devices of our cities. Designed to filter and absorb fine particulate matter, vegetation will form a continuous protective screen, shielding inhabitants from pollution, traffic noise and excessive heat.

Our buildings must become mountains, vertical forests, arbors and wildflower meadows. They must become carbon farms, feeding and nesting places for birds, bees, butterflies and small mammals.

Our lives depend on it.



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ARCHI-BIO-TECTURE, PARIS 2050, VINCENT CALLEBAUT

**Featured Projects (Built and in Planning):**

- 1 The Musee du Quai Branly, Paris, France; Patrick Blanc
- 2 Arboricole, Angers, France; Vincent Callebaut
- 3 Tree Building, Saigon, Vietnam; Inrestudio
- 4 Park Royal at Pickering, Singapore; WOHA
- 5 Bamboo Hotel, China; Penda
- 6 Bosco Verticale, Milan, Italy; Stefano Boeri
- 7 Rosewood Tower, Sao Paulo, Brazil; Jean Nouvel
- 8 Acros Fukuoka Prefectural International Hall, Fukuoka, Japan; Emilio Ambasz
- 9 Yin Yang House, Kassel, Germany; Penda
- 10 Guizhou Mountain Forest Hotel, China; Stefano Boeri
- 11 Brooklyn Botanical Garden, Brooklyn; Weiss/Manfredi
- 12 Flower Tower, Paris, France; Edouard Franconi
- 13 Clearpoint Residences, Colombo, Sri Lanka; Milroy Perera
- 14 California Academy of Sciences, San Francisco USA; Renzo Piano
- 15 Valley, Amsterdam, Netherlands; MVRDV
- 16 Hawthorn Tower, Utrecht, Netherlands; Stefano Boeri
- 17 Toronto Modular Tree Tower, Toronto, Canada; Penda
- 18 Valley, Amsterdam, Netherlands; MVRDV
- 19 Hawthorn Tower, Utrecht, Netherlands; Stefano Boeri
- 20 Liuzhou Forest City, China; Stefano Boeri
- 21 Pixel Facade System, Modular, Adaptable, Scalable; Oliver Thomas/Keyan Rahimzadeh

**Nature in the News**

Here's How Much Money Trees Save in Megacities

Nature Is Risky. That's Why Students Need It.

Study: Being around trees and other greenery may help teens stave off depression



*In the field, I watched students descend into their own darkness, depression gripping them, and I watched as they emerged from it, stronger and more grounded. (Illustration Credit: Doris Liou/RISD. For New York Times. Story, at right.)*

**Worth Noting**



**My recent conversation with Emma Loewe, mbg Sustainability Editor, MBGPlanet.com:**

[How To Create A Happy Home, According To Neuroscience](#)

**June 21st:** I will be speaking at the AIA convention in NYC; Session Title: **'Buildings as Habitat: Biophilic Design towards Biophilic Urbanism.'** I will be joined by public health researcher and biophilic design consultant, Julia Africa.

[Learn more](#) about **Places that foster Cognitive Ease and Re-Connection with the Natural World.** For Biophilic Architecture and Consulting promoting the Experience of Physiological Health and

Well-Being in the built environment, please [email me](#) or call me at: 610-299-7530 for more information.

[Learn more](#) about my **BUILDING BLOCKS FOR PHYSIOLOGICAL WELL-BEING IN THE BUILT ENVIRONMENT**

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