VERDANT VIETNAM

Words by Joshua Zukas

Across the world, biophilic architecture is in full bloom as firms theatrically intertwine buildings with nature. But in Vietnam, architects are harnessing biophilia more quietly

AT FIRST GLANCE, Vietnam's big cities are much like those of other fast-growing south-east Asian countries: a dispiriting lack of parks, meagre public walkways and glass skyscrapers that magnify the tropical heat. Upon further inspection, Hanoi and Ho Chi Minh City offer flashes of green to interrupt the grey: trees line virtually every street and, while private gardens are almost unheard of, balconies are packed with pot plants.

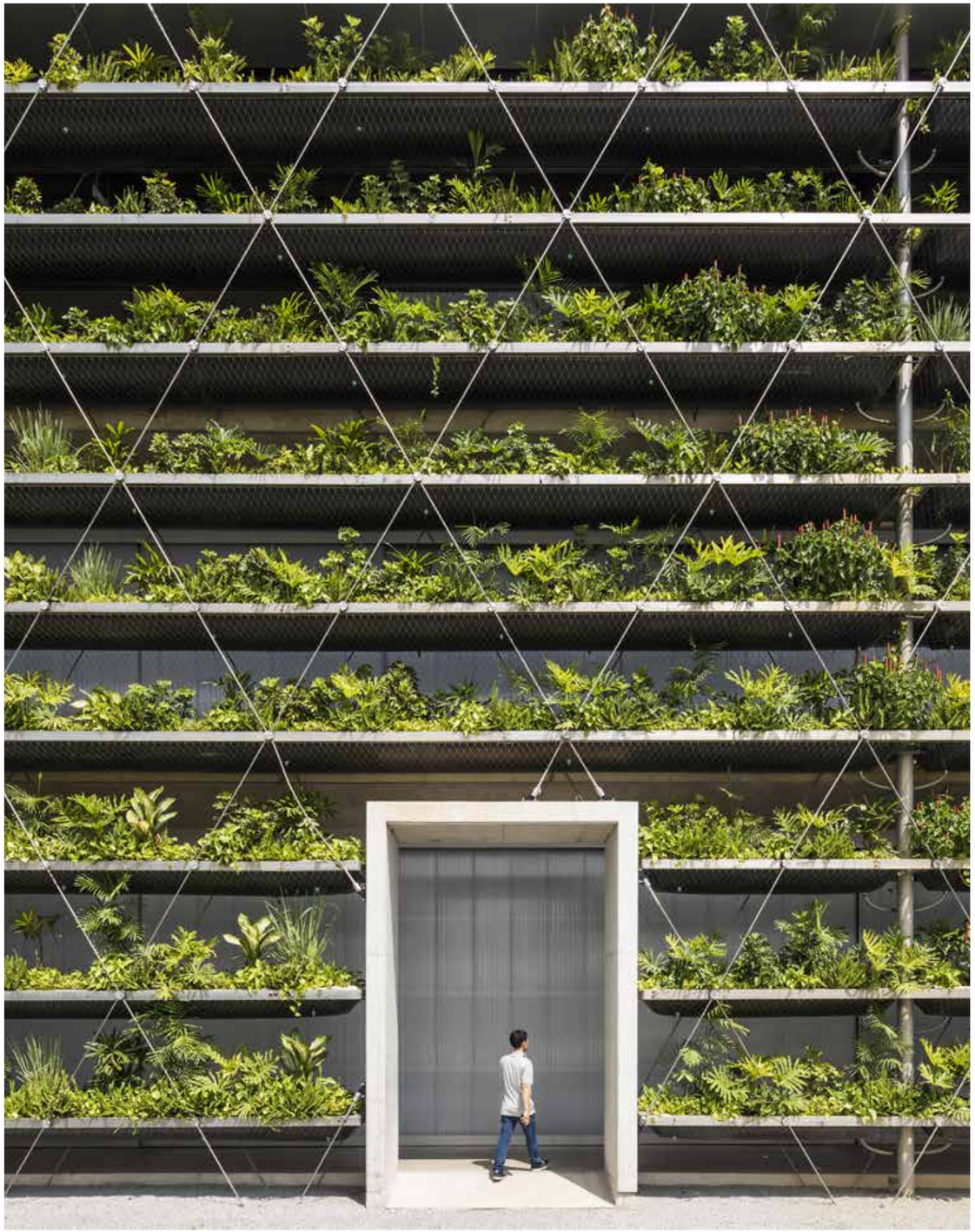
Despite urbanisation that has accelerated in the last two decades, the majority of Vietnam's population grew up in the countryside, where vegetation defends against the sun and wards off floods. Traditionally, houses were built with large openings to invite in the breeze, and climbing plants, bamboo blinds and thatch were used to shield rooms from direct sunlight. Now, faced with overheated cities that flood regularly, Vietnam's architects are revisiting small-scale biophilia to increase urban nature beyond treelined boulevards and bulging balconies.

The term 'biophilia' – adopted by American biologist EO Wilson in 1984 to describe humanity's visceral bond with nature – has been applied to describe design that connects people with nature, be it through harnessing natural light and ventilation, embedding living trees and plants or employing natural construction materials in their raw form. The movement has blossomed across the world for the better part of a decade, especially as improving urban air quality and reducing carbon footprints have become important goals in the context of an accelerating climate crisis. What's more, during a pandemic in which people are spending more time at home, indoor air quality has come under renewed scrutiny, with plant-filled designs an attractive solution.

Instagram, TikTok and other digital platforms nourish the appetite for biophilic design with eye-catching, shareable images of facades overgrown with plants and drone footage of roof gardens in bloom. Aware of the free advertising this social media fetishisation brings, international architecture firms have started to be increasingly outlandish with their verdancy.

The aestheticisation of the movement raises questions about greenwashing and sustainability. Just how good for people and planet are these biophilic approaches? Sceptics point to the cost of maintaining and watering trees and plants installed in buildings, which demand both time and money – hence their prevalence in luxury apartments and hotels. 'A green wall or a tree-topped skyscraper is more a marker of wealth and rarity than it is a badge of sustainability,' says Tim Waterman, associate professor of landscape theory at The Bartlett School of Architecture. ▸

IMAGES: HIROYUKI OKI



PREVIOUS PAGES AND BELOW Stacked planters form a climate-responsive facade on G8A and rollimarchini's Jakob Factory (2020)

IMAGE: HIROYUKI OKI

In high-rise examples of biophilic architecture, critics highlight the carbon footprint of the extra materials – typically concrete – needed to elevate heavy vegetation to such lofty heights. And they question whether trees can even survive on vertical surfaces where nature already demonstrates that they probably don't belong. 'Close your eyes and picture the face of a cliff,' proposes Waterman. 'It probably has very few plants growing on it.'

Is Vietnam simply jumping on the biophilic design bandwagon, then? 'You cannot connect what is happening in Vietnam with what is happening in Europe,' says Grégoire Du Pasquier, Hanoi-based partner at G8A Architects, a firm which also has offices in Ho Chi Minh City, Singapore and Geneva. 'You really need to think twice about green architectural solutions over [in Europe], but here it's a different story. There is more rain, plants grow quickly and maintenance isn't costly.'

Renowned international examples of biophilic architecture, such Stefano Boeri's Bosco Verticale (2014) and Heatherwick Studio's EDEN (2020), are indeed expensive markers of wealth, but biophilia in Vietnam has taken off because it is 'an affordable way to make buildings look nice', according to Du Pasquier.

Last year, G8A Architects and Swiss architecture firm rollimarchini completed Jakob Factory, a three-floor factory for a steel rope manufacturer on the outskirts of Ho Chi Minh City. A 1m-wide facade of stacked, hung planters – packed with 14 different tropical plant species – wraps the factory walls, acting like a filter to protect the building from direct sunlight and torrential downpours. Polycarbonate semi-transparent doors invite in daylight even when closed, reducing the need for artificial light. During work hours the doors slide open to allow for cross-ventilation, eliminating the need for air-conditioning on the upper floors. According to Du Pasquier, incorporating vegetation into the building goes beyond saving energy. 'We also believe that plants can create a better work environment for people,' he says.

This echoes the thoughts of Vo Trong Nghia, Vietnam's most prolific architect delivering biophilic design, who believes that there are psychological benefits to his approach. In 2014, his firm – VTN Architects – launched the House for Trees series, a growing collection of dwellings with trees implanted in the structure to link residents with nature. The most recent ▶

BELOW Bat Trang House (2020) by VTN Architects, part of the the House for Trees series

IMAGES: HIROYUKI OKI

RIGHT Ha Long Villa (2020) by VTN Architects

BELOW MIA Design Studio's head office in Ho Chi Minh City

IMAGE: TRIEU CHIEN

project in the series – which numbers 20 so far – is Ha Long Villa (2020) in Ha Long, a coastal city in northern Vietnam.

The project includes a concrete facade with rectangular holes through which trees burst forth. A thick buffer zone separates the facade from the building proper, sheltering it from direct sunlight and noise. Uniquely designed dwellings like Ha Long Villa are out of reach for ordinary Vietnamese people – Vo's commissions come almost exclusively from wealthy clients – but the 2014 House for Trees prototype cost less than £94,000 to build, demonstrating that embedding trees in structure need not be costly if done on a small scale.

Vo is a firm believer in mindfulness and nature's role in achieving this, so he cloaked his seven-floor Ho Chi Minh City headquarters (2019) in a low-cost facade of suspended concrete planters that bulge with tropical vegetation. Vo concedes that there is an environmental cost to using concrete for facades, but believes that it is the most long-lasting and cost-effective solution available in Vietnam at the moment. Meanwhile, the top two floors of his office are reserved as a meditation zone: 'I believe that through mindfulness and meditation – enabled by connections with the natural world – we can fully grasp issues like the climate crisis and concentrate on finding solutions,' he says.

Nguyen Hoang Manh, co-founder of MIA Design Studio, another Vietnamese firm that adopts a biophilic approach, draped his Ho Chi Minh City head office (2020) in cascading vines that shield the building from direct sunlight but don't block views to the outside. A leafy bamboo garden, which Nguyen named 'the field of ideas', envelopes the three-floor office, and the firm uses the outdoor space for meetings and brainstorming sessions. Nguyen also believes in the psychological benefits of biophilia, and that providing a green oasis in a concrete jungle will help keep his employees, most of whom are young architects, inspired and productive.

Both Vo and Nguyen want to see greener cities in Vietnam, and they lament that there aren't more parks and gardens for residents to enjoy. In terms of flood prevention, there is no doubt that green spaces are more effective than green buildings. 'Green architecture is eye-catching, but it isn't necessarily sustainable,' says Dang Thanh Long, executive director of the Vietnam Green Building Council (VGBC), a non-profit organisation that grades the sustainability of buildings in the country. ▸

'If we don't have the power to create parks... what should we do?'
Nguyen Hoang Manh

An argument made against biophilia is that the impetus should be creating and maintaining public green spaces rather than sticking trees and plants on private buildings, but architects in Vietnam have little say in city masterplans. 'If we don't have the power to create parks… what should we do?' Nguyen asks. 'It is only in these smaller projects that we can make our voices heard.'

However, according to the VGBC, many of the proposed advantages of biophilic architecture – cross-ventilation, natural light, protection from direct sunlight – can be achieved without the use of trees and plants, and probably with a smaller carbon footprint.

Though architects in Vietnam are showing that biophilia can be applied outside luxury apartments and hotels, the debate surrounding the approach still plays out much like it does in other parts of the world. Architects are challenged for merging the concepts of physically green architecture and sustainable architecture, which Dang believes are 'never the same'.

Those championing the biophilic movement argue that sustainability should go beyond a building's eco-credentials. 'Architecture cannot be sustainable unless it nurtures people – psychologically, emotionally and spirituality,' says Vo. 'And what better way to do this than reunite them with nature?' ◆

IMAGE: NGUYEN TAT DAT

ABOVE VTN Architects' verdant Ho Chi Minh City HQ (2019)