



**VISTAFOLIA**<sup>®</sup>

ARTIFICIAL GREEN WALLS

**Practical Greening:  
A Guide to Artificial Vertical Gardens**

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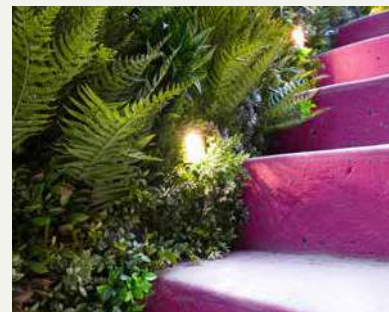


## Practical Greening: A Guide to Artificial Vertical Gardens

Artificial vertical gardens serve an important purpose. They provide a practical alternative, creating a natural-looking environment when a living wall simply won't do. With a growing design trend for green homes and offices, a real need has arisen for a substitute vertical garden system to create beautiful green spaces where real planting often struggles, or when cost and maintenance are an issue.

High-quality artificial indoor and outdoor green wall systems provide the lush, uplifting atmosphere associated with living walls, without the effort that goes into building and maintaining the latter. This provides real value for property owners who are constrained by cost, time, space or other factors from undertaking a living vertical garden project. Well-designed artificial green walls enable that vital connection to nature we desire, whether as stand-alone elements or to augment real planting.

With new technologies and close attention paid to customer needs, artificial greening is coming into its own. Manufactured greenery such as artificial vertical garden systems and artificial grass provide homes and businesses with practical greening solutions that suit different lifestyles and spaces.



## The Greening Trend: Getting Closer to Nature

We feel and work better when we are surrounded by elements of nature, or elements that remind us of nature. This is called 'biophilia', the instinctive attraction humans bear for the natural world. It's a biological hard-wiring that explains why we swoon over verdant landscapes, delight in the morning chirping of birds, or how wood provides us with a sense of warmth.

We are even predisposed to certain types of nature, so-called 'savannah analogues', the flat, green surfaces in our modern environments that take our highly evolved brains back to the ancient grasslands in which our ancestors roamed. This is why we perk up instantly at the sight of suburban lawns and, now, green walls and vertical gardens.



DESIGN: MATT KEIGHTLEY. PHOTOGRAPHY: MARIANNE MAJERUS

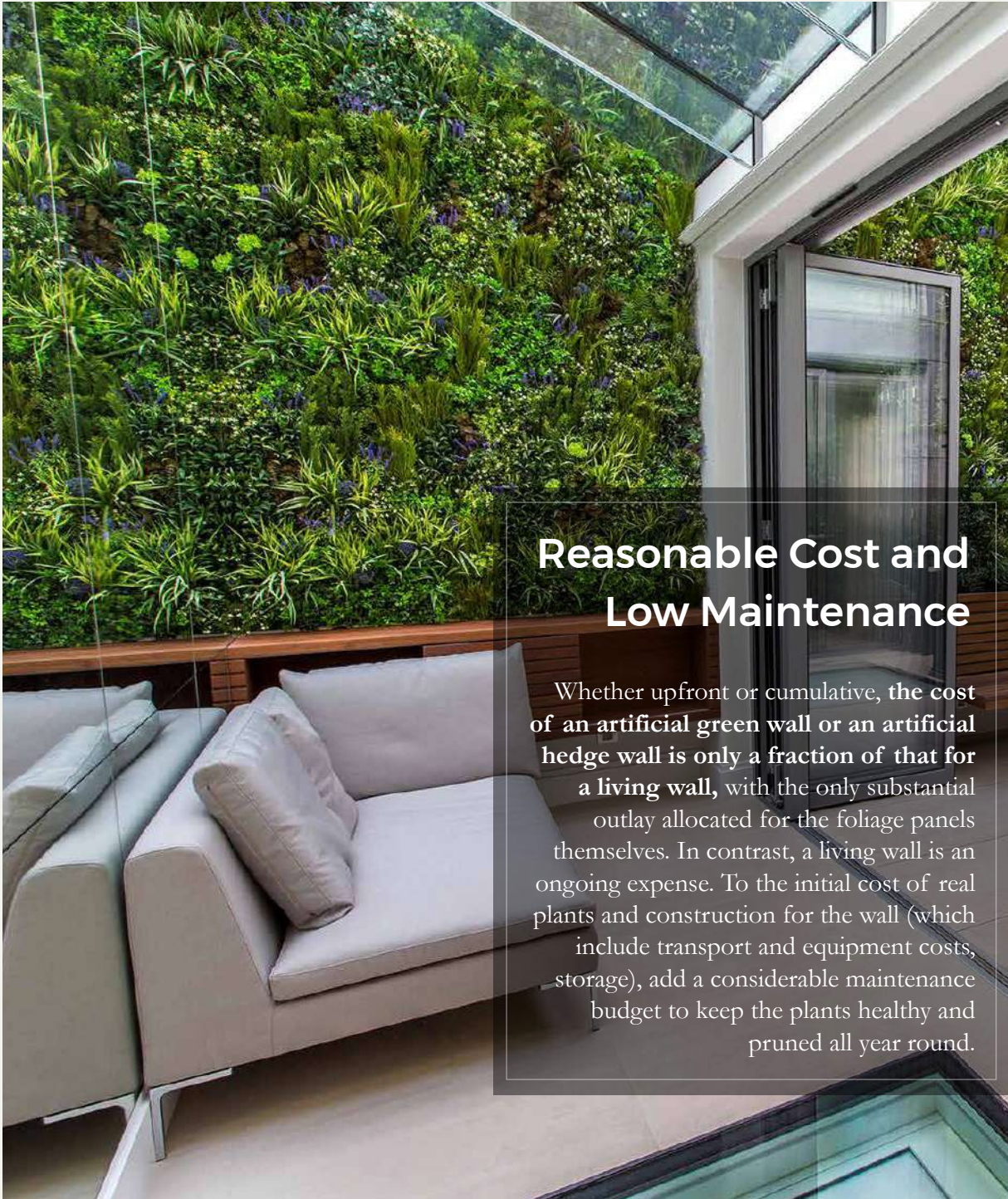
## Why A Living Wall May Not Be For You



Green walls are incredibly beautiful and breath-taking and they have many health and environmental benefits. Many organisations build living green walls to bolster their green or eco-credentials.

However, there is a huge drawback to a living vertical garden– it is costly, very complicated to build, and needs to be maintained properly. Without due care, a living vertical garden can fail, and fail spectacularly, with plants dying in as quickly as a few weeks after installation. What starts out as an inspiring greening project quickly turns into an eyesore when plants wither, and bare, dried patches appear. Consider how a dead wall for all your customers to see can be bad for your business image.

**Artificial vertical garden systems are the practical, low-risk, low-maintenance choice, effectively eliminating all of the problems associated with real green walls.**



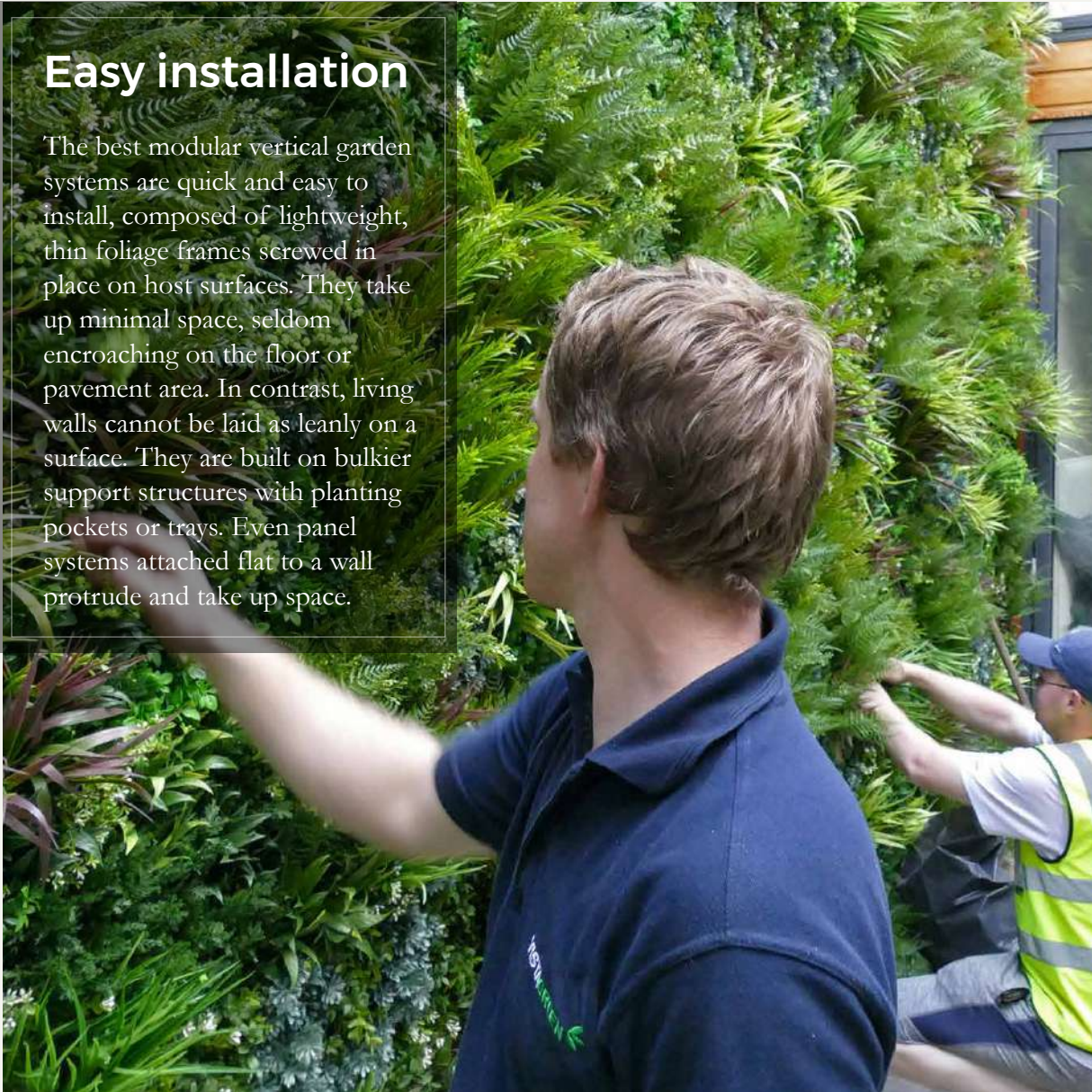
## Reasonable Cost and Low Maintenance

Whether upfront or cumulative, **the cost of an artificial green wall or an artificial hedge wall is only a fraction of that for a living wall**, with the only substantial outlay allocated for the foliage panels themselves. In contrast, a living wall is an ongoing expense. To the initial cost of real plants and construction for the wall (which include transport and equipment costs, storage), add a considerable maintenance budget to keep the plants healthy and pruned all year round.

The maintenance checklist for a living wall includes allowances for irrigation water, fertiliser, pesticides, weeding and replacement plants. Often these require professional services, as several vertical garden systems are too sophisticated to be left to clients, and some areas need expert attention, especially hard-to-reach areas on massive, sprawling walls.

## Easy installation

The best modular vertical garden systems are quick and easy to install, composed of lightweight, thin foliage frames screwed in place on host surfaces. They take up minimal space, seldom encroaching on the floor or pavement area. In contrast, living walls cannot be laid as leanly on a surface. They are built on bulkier support structures with planting pockets or trays. Even panel systems attached flat to a wall protrude and take up space.



**Load-bearing is not an issue with artificial green walls.** Their weight on a wall is insignificant from a load-bearing perspective. For living walls, on the other hand, every component's weight matters – those for plants, soil, fabric mats and specialised membranes, drainage layers and modular panels. A living vertical garden can weigh up to 20kg per square foot, when the plants are watered. Consider how heavy a load this is for roof terraces or long-standing structures such as old or weakened walls.

Moreover, load-bearing calculations need to consider the weight of the plants when fully grown and environmental factors such as wind uplift, the upward pressure exerted by high levels of wind on a building.

## Design

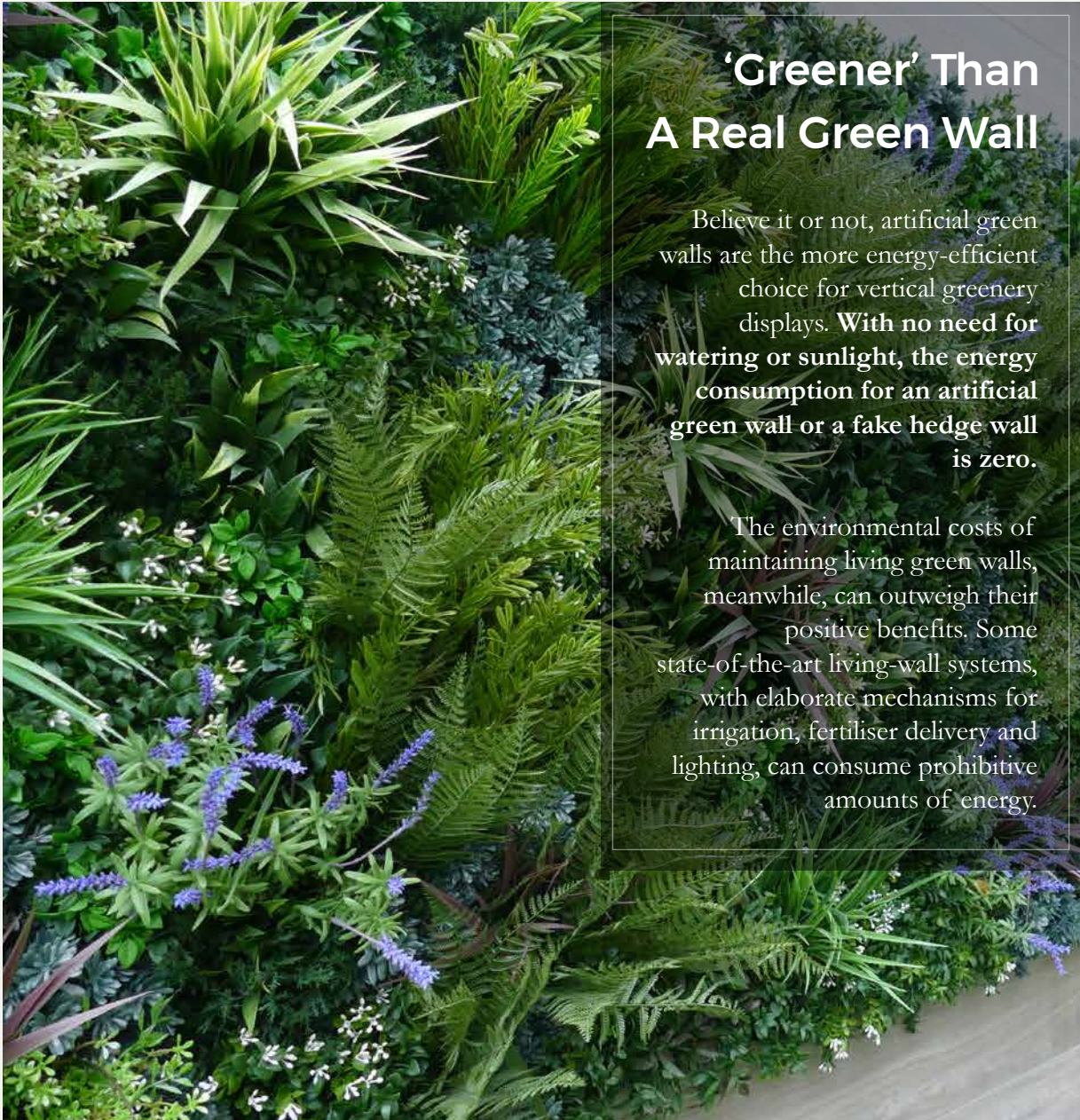
The best artificial vertical garden systems provide an unparalleled flexibility of design that living walls simply cannot match.



**Artificial green wall solutions such as Vistafolia® can be custom-fit to any surface dimension, making its panels ideal for irregularly shaped spaces. Different types of foliage can be added for seasonal interest or the panels rearranged to alter the look of the wall.**

Living walls, meanwhile, have to be designed with plant behaviour and growth patterns in mind. Planting choice in a vertical garden design is not all about aesthetics in a living wall. Species selection depends on which plants can thrive in the microclimate of the wall and which plants can grow in a specific direction. Wrong plant selection, especially those that eventually droop and smother the planting below, may need a costly re-design.





## 'Greener' Than A Real Green Wall

Believe it or not, artificial green walls are the more energy-efficient choice for vertical greenery displays. **With no need for watering or sunlight, the energy consumption for an artificial green wall or a fake hedge wall is zero.**

The environmental costs of maintaining living green walls, meanwhile, can outweigh their positive benefits. Some state-of-the-art living-wall systems, with elaborate mechanisms for irrigation, fertiliser delivery and lighting, can consume prohibitive amounts of energy.

## Water Conservation

The benefits of artificial greening loom large in times of drought. Especially in areas with prolonged dry spells such as California, homeowners and businesses have taken to artificial vertical gardens, indoor/outdoor artificial grass and outdoor artificial hedges to conserve water. Some US states even offer rebates to those who install artificial grass because they no longer eat into precious water resources to keep their lawn alive. **Maintenance-free artificial grass and artificial green walls have become smart ecological choices for the environmentally-conscious.**



## Durability

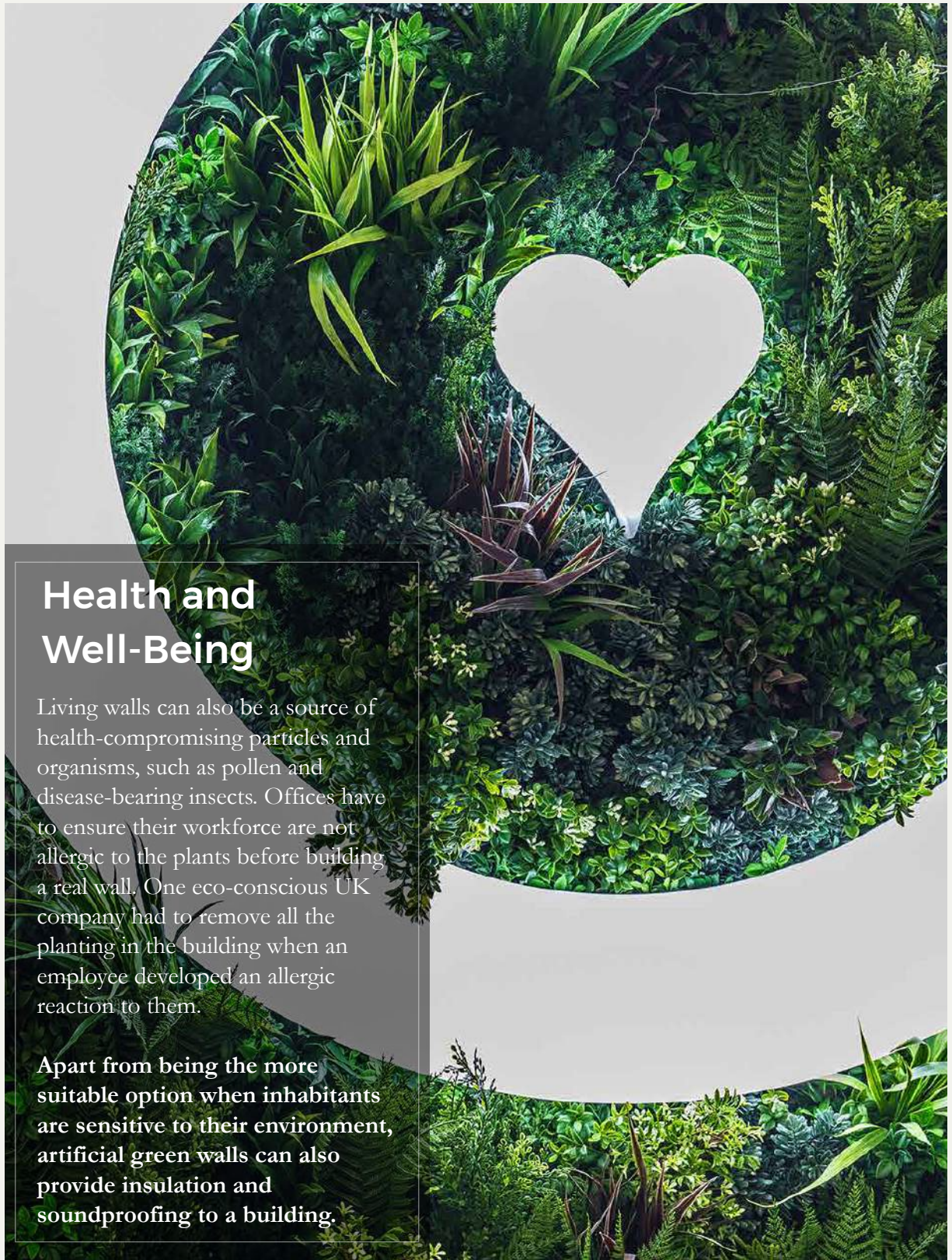
Once an artificial green wall is up, it stays looking lush and vibrant all year-round, and for years after.



**The best artificial system, Vistafolia®, comes with a five-year warranty, an indication of its high quality, weather resistance and rigorous testing protocols.**

Living walls, being animate, can only thrive with proper care, and, even then not forever. Plants in a tray system need to be replaced after a year. Those in panel systems start failing when their roots have no more space to grow. Weather conditions and disease can also affect plant health.

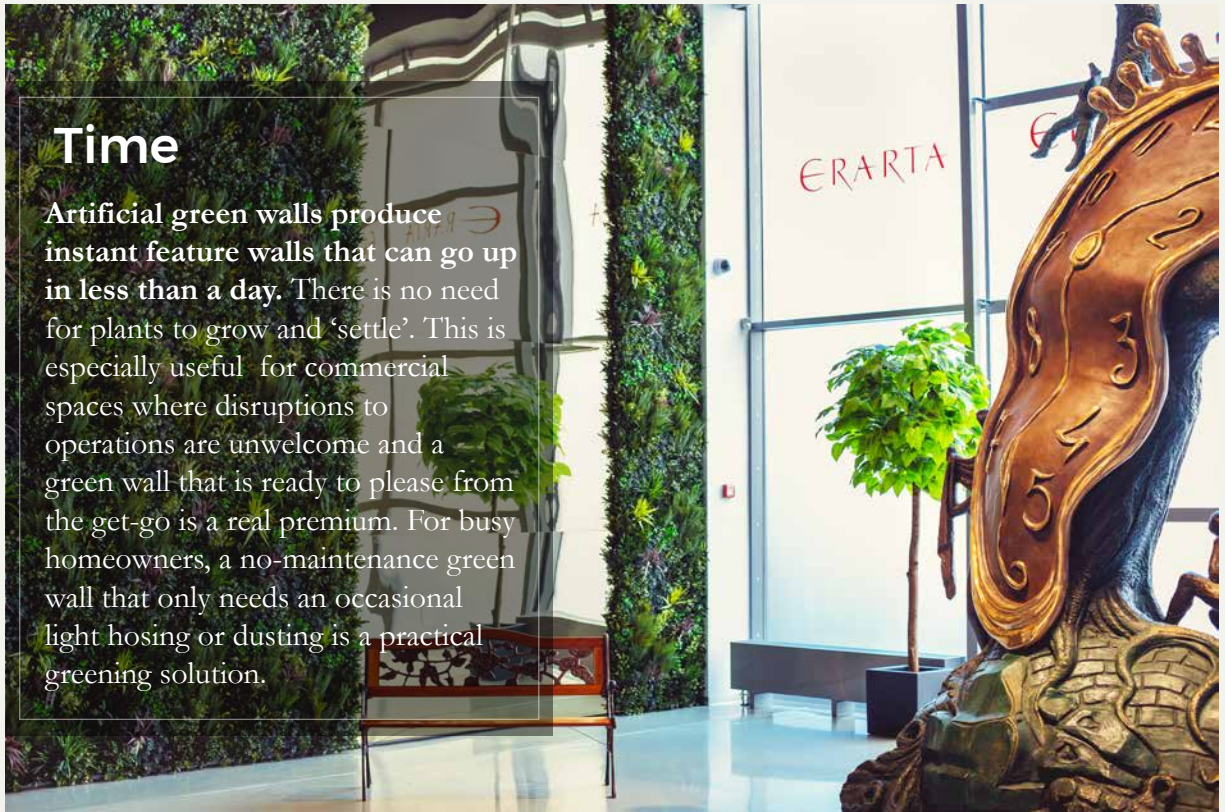
Living walls are built with a space-consuming air gap between the surface and the plant frame to ensure proper air circulation so that moulds do not grow. With artificial green walls, there is no need to worry about moulding and moisture problems.



## Health and Well-Being

Living walls can also be a source of health-compromising particles and organisms, such as pollen and disease-bearing insects. Offices have to ensure their workforce are not allergic to the plants before building a real wall. One eco-conscious UK company had to remove all the planting in the building when an employee developed an allergic reaction to them.

**Apart from being the more suitable option when inhabitants are sensitive to their environment, artificial green walls can also provide insulation and soundproofing to a building.**



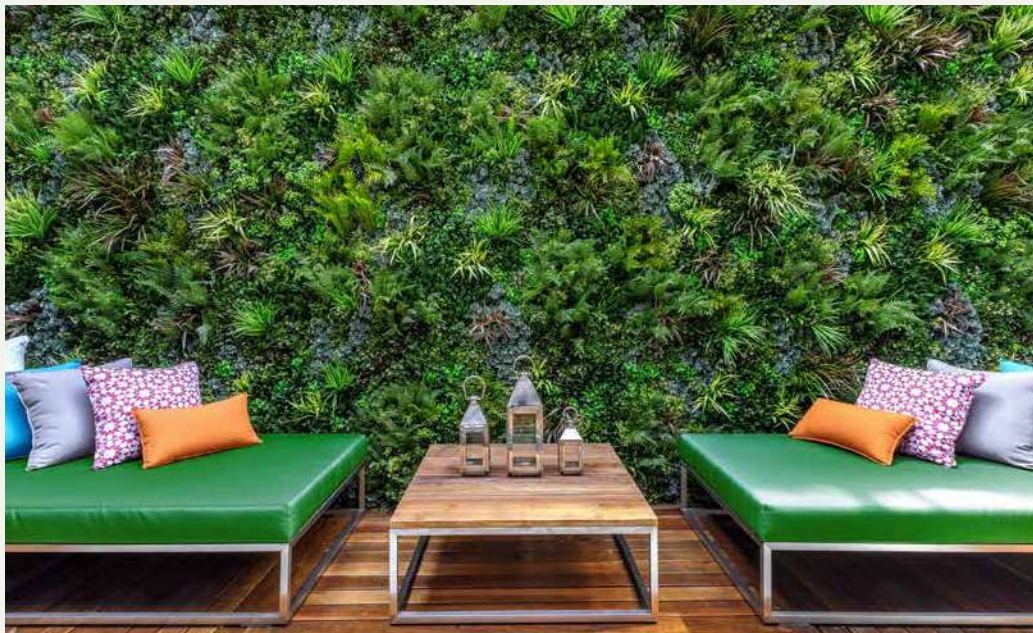
## Time

Artificial green walls produce instant feature walls that can go up in less than a day. There is no need for plants to grow and 'settle'. This is especially useful for commercial spaces where disruptions to operations are unwelcome and a green wall that is ready to please from the get-go is a real premium. For busy homeowners, a no-maintenance green wall that only needs an occasional light hosing or dusting is a practical greening solution.





Here are some examples of how the Vistafolia® solution works for specific environments:



### **Chiswick**

The owner of this London courtyard wanted a green wall but had limited space on his property. With Vistafolia®, the client was able to have a breath-taking green display without needing to put up an irrigation system.



## Heathrow Airport - Terminal 5

Airports are hostile environments for plants because of the toxic emissions, full sun and wind velocity. Vistafolia® created an attractive approach to the entrance of London Heathrow's VIP lounge at Terminal 5, introducing an innovative **cladding solution** for airport design.

Most airport living walls are located inside the buildings. With the artificial system, planting can decorate exteriors of airports, and because the panels are attached directly to the wall, they do not encroach on the pavement space.

## Glasgow Fort

Glasgow Fort is a shopping centre in Scotland with a modernist extension. The designers wanted to put up a green wall on its curving pavilion. Real planting would be impossible to place on such a **challenging shape**.

The climate is also very windswept, and therefore inhospitable to real planting. Vistafolia®'s panels were bent to fit the shape and around 20 different species of plants were used to create a year-round display.



## Avenida 252

A **lightweight, flexible system** offers many creative possibilities for displaying greenery.

This chic property development in Lisbon wanted a green wall suspended on a 60-foot frame in their reception area, a technical challenge for a living green wall.

Vistafolia®'s lightweight panels meant there was no load at all on the frame.



## Reading

The same principle applies for this display at a technology park in Reading, England, where tech companies such as Google and Oracle maintain offices.

This is a **double-sided wall** with a long, narrow space too challenging for the installation and maintenance of real plants.



## Mayfair Terrace

Because the panels are lightweight, they are perfect for roof terraces, where load considerations are important. Vistafolia® has UV-stable versions that minimise fading. They are also ISO-tested, with a five-year warranty. This wall was put up in a day, so you get an **instant decorative background** without plants having to ‘settle’.

## Holborn Terrace

Artificial green walls like Vistafolia®’s are **perfect for areas that natural light cannot reach** such as the rear wall on this garden in London. The wall was built over a century ago and is quite delicate, so only a lightweight installation could be placed.

Vistafolia® enabled this garden’s contemporary, minimalist design, with the wall serving as the centrepiece, viewed from all three floors of the house.





# VISTAFOLIA®

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## HEAD OFFICE / R&D FACILITY:

Vistafolia Ltd.

Unit 6 Trade City, Lyon Way,  
Frimley, Camberley, Surrey  
GU16 7AL United Kingdom

Tel: +44 (0)20 7385 1020

Email: [info@vistafolia.com](mailto:info@vistafolia.com)

Follow us:



[www.vistafolia.co.uk](http://www.vistafolia.co.uk)

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