

THE ECOLOGICAL FACADES

The urban geographer **Matthew Gandy** explores the work of French botanist Patrick Blanc, who applies his scientific knowledge and preoccupations to urban design. After his invention of the *mur végétal* (green wall), a botanical and structural system for greening buildings, in 1988, Blanc's work has gone on to transcend the creation of merely living walls. Through his landscape schemes Blanc has recognised the city's rich potential for verdant metamorphosis, transforming fern- and moss-covered streets and buildings into unlikely ravines or rainforests.



OF PATRICK BLANC

11-21 rue
d'Alsace,
2008

Musée du quai Branly, Paris, 2006
right: A further collaboration with the architect Jean Nouvel.

Musée du quai Branly, Paris, 2006
bottom right: Street view of the museum exterior.

Fondation Cartier, Paris, 1994
opposite top: Blanc's early project gained international critical acclaim as a novel synthesis of nature and architecture.

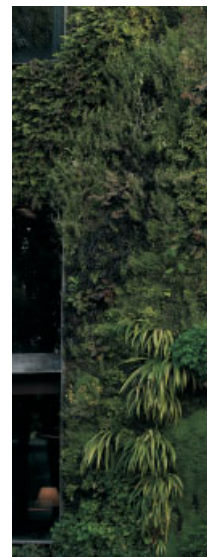
11–21 Rue d'Alsace, Paris, 2008
opposite bottom: This detail from a major project in a run-down district near to Gare de l'Est shows the characteristic wave-like installations used by Blanc for his *mur végétal*.

The upsurge of interest in 'green architecture' and 'ecological urbanism' marks a distinctive shift in the cultural and political characteristics of the postindustrial city. The presence of new forms of designed nature are exemplified by increasingly radical combinations of architectural structures with living forms: earlier experiments with indoor vegetation and roof gardens in the 1970s have now been radically extended through the aesthetic appropriation of spaces and surfaces that were previously considered too marginal or technically challenging to warrant much in the way of sustained attention. The presence of nature in the contemporary city has intensified in two distinctive ways: firstly, nature has undergone a spontaneous expansion through its return to former industrial spaces, cleaner rivers and other ecological niches; and secondly, nature has been intentionally extended through diverse interventions ranging from new forms of urban agriculture to elaborate design innovations.

A leading figure in the greening of architecture and urban design is the French botanist Patrick Blanc. Blanc is a somewhat unusual figure since he combines an active research career as a scientist at the prestigious Centre National de la Recherche Scientifique (CNRS) in Paris with an increasingly successful design practice focused on the creation of vertical gardens.¹ His highly distinctive *mur végétal*, which was patented in 1988, comprises a combination of metal frame, PVC layer and polyamide felt, with an automated fertilisation and watering system which allows an assemblage of plants to be permanently maintained against a vertical surface. These living walls typically contain a mixture of indigenous and imported plant species that are carefully arranged in relation to vertical variations in moisture and temperature.

Blanc presents himself as a scientist with interests in urban design, and his association with various strands of 'ecological urbanism' stems in part from his scientific background as well as the aesthetic characteristics of the projects themselves. 'My scientific approach,' he explains, 'is essential for designing the whole system and for selecting the plant species suitable for each peculiar location.'² For Blanc, the modern city has structural similarities with rainforests that present underexplored possibilities for landscape design; the vertical surfaces of the city provide an ecological tabula rasa to be manipulated to maximum effect. Streets or buildings can become transformed into moss- and fern-cloaked ravines that resemble the lower canopy of a tropical rainforest partially shaded from the sky above. Indeed, the height of many buildings – especially the six-storey norm in much of central Paris – is comparable with many tree species that can be found in rainforests.

Blanc's first plant installation was created in 1988 for the Cité des Sciences et de l'Industrie, Paris, and was followed by other widely acclaimed projects in the city such as the Fondation Cartier (1994), designed by the architect Jean Nouvel, the Musée du quai Branly (2006), where he worked alongside Nouvel and the landscape designer Gilles Clément, and 11–21 rue d'Alsace (2008). Blanc's vertical gardens have been incorporated into a variety of projects ranging from embassies and museums to hotels and shopping malls: indeed, his work for French embassies is suggestive of the increasing significance of his work as a kind of 'cultural signature' to be added to the exterior of high-profile buildings. For the most part, however, his work is restricted to the quasi-public realm familiar to late-Modern urbanism with its corporate atria and display spaces.









Siam Paragon shopping mall, Bangkok, 2005
opposite: Blanc's retail projects suggest a contradiction between the aesthetic and ecological aspects of his work.

robe végétale, 2002
far left: Blanc's designs have now become a recognised 'brand', as signified by his links to fashion (in this case for Jean Paul Gaultier) and elite retail spaces.

BHV Homme, rue de la Verrerie, Paris, 2009
left: An example of Blanc's recent installations on behalf of exclusive retail outlets.

As with the German artist Joseph Beuys, there is a compelling biographical sketch that underpins Blanc's public profile. We are told that his interests can be traced to early experiments with aquatic plants growing out of aquariums followed by research expeditions in the early 1970s to the tropical rainforests of southeast Asia.³ Photographs of Blanc suggest an intrepid figure perched high up in one of his own creations, or scaling steep cliffs to explore new design possibilities for the modern city. We encounter an active 'outdoor' persona that belies his skilfully crafted affinity with the latest fads in urban architecture and design.

In what sense, however, can the work of Blanc be regarded as ecological, or indeed part of a broader shift in architectural sensibilities? His projects represent not so much a metaphorical elision between art and science – that is now so pervasive in architectural writing – but a material synthesis of their contradictions. These ecological simulacra present a curious paradox since they are linked to advances in ecological science yet in themselves play no useful ecological role. While aspects of the structure and design of Blanc's *mur végétal* are derived from his research practice, these green walls play no clearly defined didactic or ecological function. The *mur végétal* is essentially decorative and bears little relation to the kind of simulated nature that we might encounter in zoos or botanical gardens: these walls are not intended as elaborate reconstructions of nature for educational purposes, but present a commercially driven synthesis of aesthetic and morphological elements removed from their original context.

Unlike other figures associated with the 'greening' of cities, Blanc does not link his

projects to a clearly defined set of ecological objectives: these walls remain ostensibly non-political beyond a vague attachment to the enhancement of biodiversity, the improvement of microclimatic conditions or the enhancement of human wellbeing.⁴ Yet the scientifically inflected 'impartiality' that pervades his work masks the increasing complicity of his design with the speculative dynamics of capitalist urbanisation. Projects for the Marithé & François Girbaud boutique in New York (2003), and the Siam Paragon shopping mall, Bangkok (2005), show that Blanc's work is fully integrated into the leading edge of elite consumption. In 2002 he even created a *robe végétale* for Jean Paul Gaultier as if to underline an easy oscillation between high culture and haute couture.

Recent years have seen a resurgence of scientific ideas and metaphors in urban discourse engendered by changing tastes in urban design, an eco-political *Zeitgeist* and a variety of technical advances in fields such as computer-aided design and materials science.⁵ This current upsurge of nature-based urban design can be criticised as a regression towards pre-Kantian forms of mimetic adaptation or simply an elaborate architectural mask.⁶ In the case of Blanc, however, his living tapestries lie closer to the second line of critique since they literally cloak the exterior of buildings and lend them some degree of eco-lustre irrespective of their actual functions.

What are the implications of ecological science – or more specifically botany – for urban design? Botanical knowledge is used for the *mur végétal* quite differently from the ecological interventions and experiments that work with the already existing biodiversity of cities. The artworks of Paul-Armand Gette or Ulrike Mohr, for example, present a radically

different approach to the reading of urban nature where the emphasis is on a closer engagement with what is already there. Plants can and do colonise vertical surfaces in cities and these spontaneous examples of vertical gardens are more ecologically significant than Blanc's simulacra. Unlike the *mur végétal*, these spontaneous green walls require no additional inputs of water or energy to survive and are a haven for wildlife in the heart of the city. We need a better analytic frame through which to examine the greening of cities: though the *mur végétal* is derived from scientific insights, its actual role within urban space has received little critical attention. **D**

Notes

1. See Patrick Blanc, *Le Bonheur d'être plante*, Editions Maren Sell Edituers (Paris), 2005, and Patrick Blanc, *The Vertical Garden: From Nature to the City*, WW Norton (London and New York), trans Gregory Bruhn, 2008 [2007].
2. Patrick Blanc, interview in *Pingmag*, 8 December 2006; see <http://pingmag.jp/2006/12/08/vertical-garden-the-art-of-organic-architecture/>, accessed 29 October 2009.
3. See, for example, Kristin Hohenadel, 'All His Rooms are Living Rooms', *New York Times*, 3 May 2007.
4. Patrick Blanc, interview with Sophie Rousseau and Danièle Weiller for *Biotope City Journal*; see www.biotope-city.net/artikelen%20editie1/francais/Interview.P.B.fr.htm, accessed 28 October 2009. The need to consider the ecological impact of entire buildings rather than their surfaces alone is raised by Rodolphe Deborre, 'La biodiversité au service du bâtiment ... et vice versa', *Le Monde*, 2008; see http://www.becitizen.com/pdf/LemoniteurLa_biodiversite_au_service_du_batiment.pdf, accessed 28 October 2009.
5. See, for example, G Feuerstein, *Biomorphic Architecture*, Axel Menges (Stuttgart), 2002; M Hensel and A Menges (eds), *Morpho-Ecologies*, Architectural Association (London), 2006, and P Portoghesi, *Nature and Architecture*, Skira (Milan), 2000.
6. See M Vercelloni, 'Mimesis, Design and Nature', *Lotus* 135, August 2008, pp 86–95, and F Repishti, 'Green Architecture/Oltre la metafora', in *ibid*, pp 34–41.

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