



NATURAL HABITATS
LANDSCAPES

Thought Piece
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Let's green New Zealand from the top down

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I've spent the last few weeks wondering if my house will stay upright.

It's a well built house, alright, but I'm sure the builders never thought a future owner might consider covering the roof with tonnes of living material.

I'm going for a green roof.

Like a small but growing number of New Zealanders, I'd like to see the "land" above my head becoming as infused with green qualities as any garden or natural area.

Imagine flying over Auckland city and seeing the blue of the Waitemata meet a sea of urban green. This can be a reality.

More than just a fad, green roofs are being seen as the answer to many inner-city problems in both Europe and the US. Consequently, the technology is enjoying a surge of development.

The Chicago Green Roofs project, for example, provides grants to buildings that convert to a green roof. With more than 200 green roofs in the Chicago city centre - and counting - the project is clearly working.

Chicago, the birthplace of the skyscraper has now become, rather fittingly, the city with the greenest roofs in the United States.

Considering green roofs as an environmental alternative in New Zealand, even five years ago, would have been in the domain of hippy-dom. Although nowhere near a mainstream concept yet, it will become so as more people realise the personal and community benefits.

In America we see big city problems in places like New York - issues such as overflowing stormwater and sewer systems, flooded subways and asthma rates up to three times the national average. Our cities don't need to go down this path.

As our cities grow, up more than out, we have an opportunity to future-proof them from some of these issues.

To a small degree this is already underway. The Auckland Regional Council is conducting a three year practical research project into green roof feasibility atop the Auckland University Faculty of Engineering building. Waitakere Civic Centre has also recently completed its green roof project.

So why install a green roof? A number of studies point to the advantages of green roofs, and in America there are magazines devoted specifically to current green roof research and developments.

Put simply, green roofs provide a building with better stormwater control, additional insulation from noise and heat, reduced energy costs and, if required, a green space that can be used by the building's occupants.

Down at street level green walls and rain gardens are also becoming common as an effective way of beautifying intensive spaces and providing natural stormwater management.

The city of Phoenix has recently turned to green walls as the solution to 'greening' the daily commute, installing green walls at 28 of the 32 city's light rail platforms. Likewise, Qantas uses green walls as works of art in their Sydney and Melbourne airport first class lounges.

There are some important considerations, of which cost is one. New Zealand's climate requires more deeply set green roofs than many other countries, hence more strongly framed structures to support them.

The weight of a green roof obviously needs to be well supported, which means many buildings may not be able to be retrofitted with a green roof without strengthening the frame.

Alternative ideas are emerging that are more suited to light framed buildings. Recently, the idea of a 'green cloak' a canopy of greenery planted on the ground yet covering a building like a canopy, has been found to be almost as effective, with far less weight involved.

However, the energy savings, lower roof maintenance costs and increased occupant wellness, as well as the greater community good (reduced infrastructure to cope with stormwater runoff) will ensure these extra costs are easily offset by savings over the life of the roof.

More fundamentally, by planning and acting now New Zealand's built environment can begin to be true to the *100% Pure* vision we like to have of ourselves.

That's certainly something to strive for.

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Natural Habitats is a leading New Zealand landscape design and build business, which is a pioneer in 'green infrastructure' - green roofs, green walls and rain gardens.

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