THE PLANT REVOLUTION

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CITIES ARE EMBRACING ROOFTOP GARDENS AND GREEN WALLS, AND THE DOMESTIC MARKET IS CATCHING ON. MATT LEACY LOOKS AT THIS CLEVER TREND.

It's time to get smart about the way we design our cities and urban environments, a chance to take control of the structures sprawling across our land, it is time for… the plant revolution!

High density, apartment and townhouse living is more often than not part of the package with inhabiting most of our cities. Concrete and sustainable timbers have a brilliant effect if designed and implemented well, but they truly come to life when they co-exist with clever plant selections.

With a little bit of encouragement and foresight, the plant revolution can take over, not in a weird *Day of the Triffids*-type takeover, but more of a humble juxtaposition with the city and its structures. You may have noticed a lot of green walls, rooftop gardens and grass areas popping up all over our cities. Houses, garages and garden sheds are getting green roofs; offices, houses, city courtyards and bars are starting to allocate entire walls to plantings or green walls.

It was only recently the entire Harbour Bridge was covered in lush green grass… the revolution is here! Let's keep it going by softening the divide between structure and garden, between inside and out. It's important that we start looking at the world, and our place in it, in a different light. ▶

> Dead and cold spaces are beginning to feel alive again, as nature starts its transition back into an environment that has for so long locked it out with its concrete walls.

DID YOU KNOW?

NOT ONLY DOES A FLOURISHING ROOF GARDEN ENHANCE THE OVERALL AESTHETIC, IT IMPROVES A BUILDING'S ENVIRONMENTAL PERFORMANCE, THERMAL INSULATION AND CLIMATIC RESPONSIVENESS.

We have the technology and the engineering skills to achieve just about anything. To really get the benefits of cleaner air, heat reduction, the absorption of pollutants, shade, windbreaks and the easing and slowing of water runoff, all we need to do is look at every space as an opportunity to create some green. Landscapers and architects are starting to turn their visions of green cities into reality.

Helping to keep the wheels in motion is the research and development that has been undertaken to produce lightweight soils for intensive gardens. Fytogreen is a major contributor to this technology in Australia. I have worked on numerous projects with them and seen these highly successful technologies first-hand. Lightweight soils are being used for many applications, with one of the main areas being roof gardens or green roofs. Green roofs are flat or pitched roof surfaces that can be planted using a growing medium over a waterproof membrane.

Stuart Tyler from Fytogreen explains the system;

> "Our minimum profile depth is 140mm from the top of the waterproof membrane to the top of the stone mulch. This has 100mm of growing media depth, as we use 20mm for a drain layer and 20mm for stone mulch. The plants we use for this are ground covers, grasses, succulents and sedums where appropriate. We plant using tube stocks. The selection of plants is part of the design plan that our horticulturist does when we know what the growing environment is.
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> For turf, our minimal profile is 150mm, which works well in a domestic trafficable turf. With advanced trees, we can plant any size, but the root ball depth must be able to be accommodated within the profile depth. So, if you want to plant a 1.5m-deep root ball, you will need a profile of 1.6m deep. Typically, when planting large advanced trees, the soils are mounded up to accommodate the depth and we use sub-soil root anchoring called Platipus."

Like most projects, success is linked to the design, planning and preparation phase. Many of the new techniques are easily adopted into new buildings and new landscapes – and most are more cost effective than traditional techniques when considered as part of the overall scope.

Good planning and design saves money throughout the project. Using someone who has tried and tested plants and materials with an array of diverse environments makes sense and will result in a more successful and cohesive project.

The plant revolution has definitely begun and we all need to start considering its advantages more. As you walk around your local city streets, lift your head up and start to look around above you – you will see gardens popping up in places you would never have thought possible. Dead and cold spaces are beginning to feel alive again, as nature starts its transition back into an environment that has for so long locked it out with its concrete walls.

At the planning stage of any project, the building and planting should always be considered. A holistic approach will ensure the outcome of the project will be a success environmentally, aesthetically and financially.