AWARD-WINNING, SELF-SUSTAINING HOME DESIGN IN URBAN SYDNEY

The inner-Sydney terrace incorporates green technologies and some small-scale food production

Spotted: Winner of the International Interior Green Award and a Sustainable Building Award, Aquas Perma Solar Firma brings together sustainability and permaculture, demonstrating that you can still live off the land in the midst of a concrete jungle.

The home of Sydney couple Geoff and Julia was designed to meet the needs of a modern, environmentally-conscious and socially responsible couple, aiming to live as off-grid as possible.

The house includes an aquaponics system for fish harvesting, a 5000-litre underground rainwater tank to capture and use throughout the home, ‘self-watering’ wicking bed systems, compost, a worm farm and even a little vegetable garden.

With aquaponics, the garden bed sits on top of a fish tank, allowing the plants to purify the water and the waste from the fish to be converted back into fertiliser for the plants. Geoff and Julia also have a 3kW solar energy system and an evacuated tube solar water heating system.

The home generates so much fresh produce that indirectly, they’ve developed a neighbourhood co-op. A few free-roaming chickens provide the final touch, allowing the couple (and their neighbours) to enjoy fresh eggs for a perfect, cafe-worthy breakfast.

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Takeaway:

According to a report published by the United Nations, an estimated 10 billion people will have to live on limited resources by 2050. The concept of self-sustaining, off-grid houses offers a potential solution to these challenges, as well as the ability to reduce global CO2 emissions. However, it must incorporate a holistic approach that combines everything from innovative technologies, to the empowerment of local communities.