

MULLUM CREEK FEBRUARY NEWSLETTER

Article by Steffen Welsch Architects

We used to believe that passive solar design involved catching the sun in winter and shading in summer, resulting in a simple box with large windows to the north and few windows to the south. Every room had to be oriented to the sun which restricted layout options. Passive design also had a certain 'look': untreated timber, corrugated iron, eaves, rainwater tanks, solar panels and a slight lack of solidity - homes felt more like a shed than a house. While we want our buildings to be low impact and use resources sparingly and wisely, a home is much more than an energy efficient box.

Over the years we've found that passive design needs to consider more complex considerations: how to accommodate family functions; how to be comfortable for two people in winter; how to live together harmoniously with overnight guests; how to supervise your children when they play outside. Materials need to be employed strategically to maintain comfortable internal temperatures, and openings are to achieve balanced natural light and good ventilation in summer when you want the breeze. All these considerations need to be weighed up; ideas need to be tested and experienced in a built form to understand what works and what doesn't work in terms of functionality, comfort and 'feel'.

We've learnt over the years that weighing too heavily on the practical side of a project and focussing on performance only can leave a space missing spirit and character.

One of our favourite houses is 'Standard Solar I', built in 1989 by Austrian firm Driendl Steixner. It was the first of a series of prefabricated low-energy houses built at a time when environmental protection had entered our consciousness but green building was far from mainstream. Not only is it a superb example of passive solar design, it applies modernist principles of generosity, transparency, openness, honest use of materials, and makes them accessible and affordable. Spirit and character abound.



Standard Solar I by Driendl Steixner

In our 'House in House' project, we were asked to design a home for a family with a busy life, adult child, two pets, and an extensive art and book collection. Site, planning, and building controls appeared restrictive at first. A 'run of the mill' home wouldn't have been functional, compliant, or very interesting. These challenges generated a home with five courtyards of varied sizes, functions and character. You can step out of the shower in the master bedroom right into the dappled sun or stretch outside the home office in the outdoor 'breakout space'. The courtyards provide greenery, fresh air, sunlight into living rooms, but also privacy within the home and from the street.

Another project uses hemp walls in the passive solar design. Hemp is a fabulous sustainable building material yet to be fully discovered. It's beautiful, provides thermal mass, insulation, good acoustic qualities, and can absorb moisture in the air to make a healthy home. Applied in the right manner it can also reduce the carbon footprint of a home – and even curved hemp walls are possible!



House in house by Steffen Welsch

We've learned to explore elements that add new experiences to each home. As an architect, it's exciting when you can introduce new and simple aspects that follow our ethos of sustainability but are striking features in themselves. The real art is creating a space of joy and delight, beyond being only functional, that realises the Bauhaus maxima of 'form follows function'.

As you're planning your home at Mullum consider the following:

- Ask the question: how can the sustainable design guidelines add distinctive features and personality to your home?
- This unique subdivision and your individual block should produce a personalised home over a 'run of the mill' standard solar design solution. What 'spirit and character' will you achieve in your home?
- Are there other opportunities you haven't thought of in your project, like a healthy home?
- Think about the houses you've lived in and what spaces/features/experiences were your favourite and why? They probably had that 'spirit and character' we're talking about. Ask your architect/designer how she/he could express or incorporate that 'spirit and character' into your planned sustainable home.

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