

CHALLENGING *times*

With sustainability in mind, building design and developments can and should have a positive and regenerative effect

Words Caroline Pidcock

“Australia must strive to cut its emissions rapidly and deeply to join global efforts to stabilise the world’s climate and to reduce the risk of even more extreme events, including bushfires. This is the critical decade to get on with the job.” — *Be Prepared: Climate Change and the Australian Bushfire Threat*, Climate Council, p52.

Australian buildings are responsible for at least 23 per cent of the country’s CO₂ emissions, and designers must respond positively and urgently to the Climate Council’s call for action. It is clear we are not doing enough and need to rethink the basic assumptions of our approach to the built environment.

I have been delighted to be introduced to, and involved in, promoting the Living Building Challenge (LBC) here in Australia. Its underlying principle is that all development should be positive and regenerative. Not “less bad”, but seriously contributing to making the environments in which they are developed better.

Projects should use nature as the ultimate measurement stick for performance — the LBC uses the metaphor of the flower to illustrate this principle. Like a flower, all elements of the built environment are rooted in place. Yet, a flower has place-based solutions to meet all of its energy, water and resource needs and to maintain balance with its surroundings, while looking gorgeous.

The LBC asks us to imagine a building, site or infrastructure project that is informed

by its ecoregion’s characteristics, generates all of its own energy with renewable resources, captures and treats all of its water, and operates efficiently and for maximum beauty. Ideally, these developments should be part of a neighbourhood that has appropriately scaled these solutions.

Importantly, this initiative aims to provide the rich and poetic narrative needed to help us change what we do for the better. It encompasses both technical elements and philosophical considerations.

There are a total of 20 “Imperatives” in the LBC and they are organised into seven categories or “Petals”.

The Site Petal focuses on re-establishing balance between nature and the built environment. Implicitly, it advocates for us to re-evaluate the current trend of decentralising our communities, which increases transportation impacts and pollution.

All LBC projects treat water as a precious resource. This requires us to design buildings that have net-zero water use over the year, while maintaining and/or reinstating ecological water flow for the site.

The next Petal, Energy, is simple. It only has one imperative: net-zero energy. This is achieved by designing our buildings to be as energy efficient as possible. By reducing the load by up to 80 per cent (yes, it is possible!), we can



It is all about changing business as usual, which is never easy but always exciting! I believe we can all do so much more to make our built environment a better place

then aim to provide renewable energy (not fossil fuel) for what is required. Teams are encouraged to use the Scale Jumping overlay — or the neighbourhood — for this Petal.

The Health Petal focuses on best practices to create healthy spaces — both physically and psychologically.

The Materials Petal has the most “Imperatives” and has far-reaching impacts on design and the other petals. It requires no toxic materials or chemicals to be used; the embodied carbon footprint of the development to be valued; products to be sourced from third-party-certified practices; products to come from the local area — so as to invest in and support local sustainable businesses and people; and, finally, it requires the conservation and reuse of materials and systems to ensure there is no waste in the development.

The Equity Petal focuses on creating a built environment that upholds the dignity of all members of society regardless of their physical abilities or economic situation.

Finally, the LBC recognises the need for beauty as a precursor to caring enough to preserve, conserve and serve the greater good. In this Petal, the Imperatives (beauty + spirit and inspiration + education) are based on genuine efforts.

This is called a challenge for a good reason. It is all about changing business as usual, which is never easy but always exciting! I believe we can all do so much more to make our built environment a better place. As a designer, I also see that in doing so, we can find much more enrichment and excitement in our work. Designers need to bring their clients and the people who will occupy buildings along on this inspiring journey, as it requires all of us to work together to succeed. I know this is not always easy, but it is critical that we help each other to make this possible. Our future depends on it. **HD**

