A whole lot more nuanced

BY DEBBIE CHAMBERS AND DAVID GALLOWAY

Our house in Wilderness Rd, Margaret River first featured in ***The Owner Builder 95 October/November 1999***. Since then, our project has moved on. What we are doing now is a whole lot more nuanced. The buildings are still there but there have been a large number of small, and not so small, innovations and changes. While we have added a few new structures most of the changes have been around how we live in the place, the outdoor spaces and garden areas.

The original project used a six metre section of a mining kiln as the core of the house, a mixture of rammed earth and mud brick walls, recycled windows and doors; and integrated old and new corrugated sheet steel and natural wood features into the buildings. In 1999 our priorities were creating a home for ourselves and our daughter, and an office location from which to operate a sustainability consultancy.

Changed priorities

In 2000 we left Margaret River to work in South East Asia, the Gascoyne and Midwest regions of Western Australia. When we returned in 2013 the buildings and permaculture gardens had become run down and needed extensive renovation.

Over the past four years we have rebuilt these but with a new perspective on what we wanted to achieve.

Now, in 2017, our daughter is away at university. Ferart Design, the design

consultancy, has moved on from sustainability and focuses on large-scale urban and community regeneration, and building cultural and economic resilience.

Debbie recently started a parallel business, Ferart Studio, taking an art and design approach to making bespoke, sustainable homewares and furniture. Debbie is using her Occupational Therapy skills to develop a creative centre for personal retreat and regeneration.

Current thinking

In many ways the path for both the house, and our businesses, has followed the thinking around sustainability. In the 1990's the equation was fairly simple – most people considered suitability as working at the centre of the three, interlocking, circles of economics, environment and community.

The 1990's version of sustainable development defines itself as 'seeking to meets the needs of the present without compromising the ability of future generations to meet our own needs.' As good as this is, the definition does not recognise that the state of the world is such that we need to do more than avoiding running down natural capital. We need to rebuild nature and find innovative solutions to climate change.

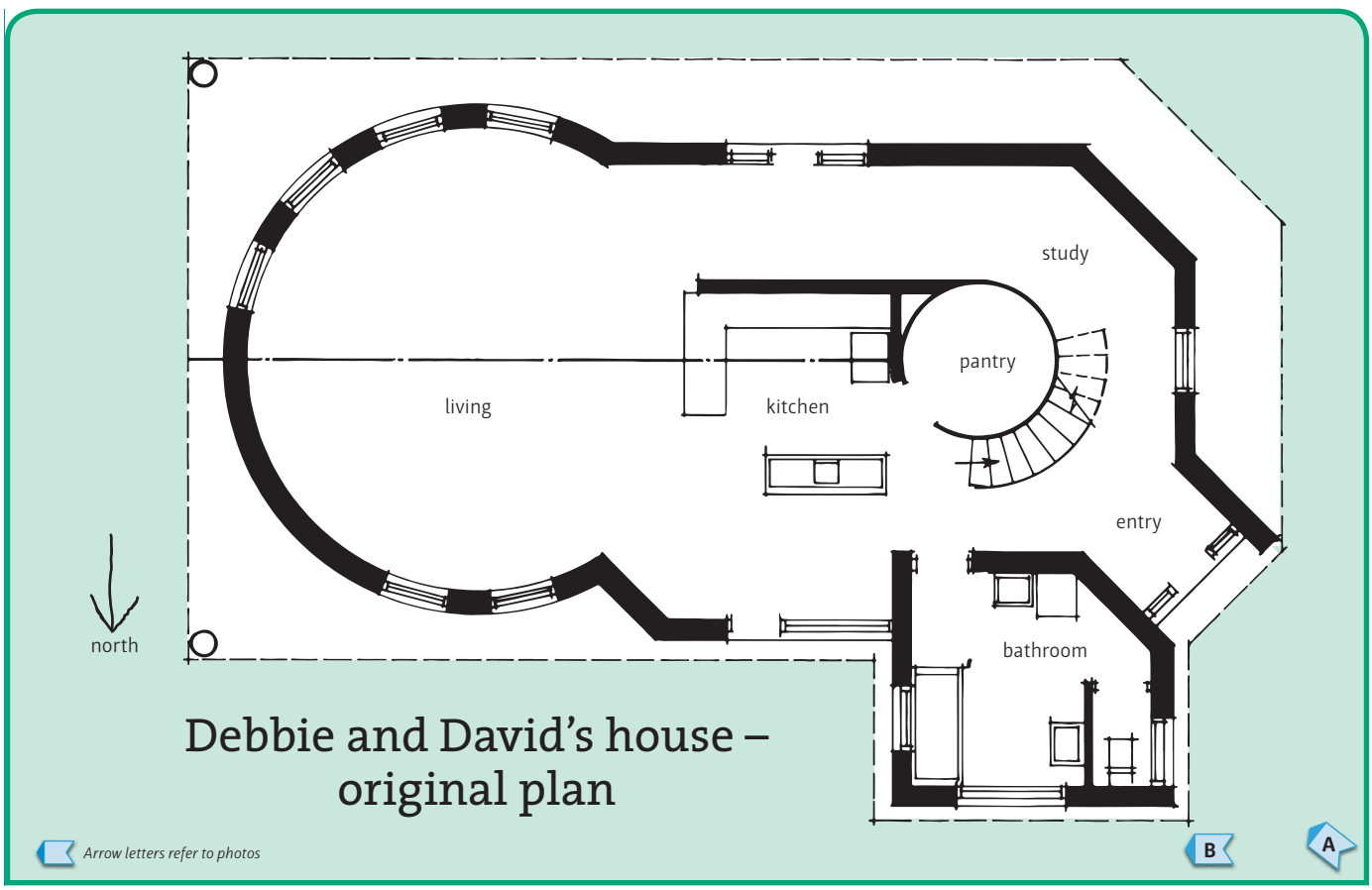
The reality is far more complex than that. Consequently our businesses and lifestyle has moved beyond sustainability into building resilience and regeneration. We have turned the place into a demonstration project where people can see a wide variety of building techniques and styles. The new additions show bush pole construction from our own home plantation, gabion rock walls, recycled timber furniture, and extensive use of inexpensive, end-of-run building materials. We have created ways to sequester carbon, create natural habitat, and develop a respectful, rather than utilitarian, approach to design; things are valued for their beauty and quality so there is no desire to throw them away. This has created a place where people find a refuge to restore their souls.

The 1990's sustainability model was also fairly narrow in its definition of 'needs' – focusing on things like clean air, water, and availability of resources. Twenty years on, we are thinking about developing ways to meet, bigger but more diffuse, human 'needs.' This includes: how to address the restless search for identity in a globalised world of connection; how to create meaningful work despite robotics taking over production of goods and services; and the rise of anti-politics and need for local self-determination.

Integrating our house into a continuum of values, lifestyle, accommodation, work and contributing to the world places a whole new perspective on what we are doing. We don't support the idea of trying to disconnect from the world in our own sustainable enclave, we are all interconnected on this planet and we need to work together to repair it.

Ongoing retrofitting

The basic structure of the house from the 1990's is still there. Most of the things that we built then still work very well. Creating small and adaptive spaces was a big winner. This, together with owner building, provided an affordable housing option and avoided an expensive long-term mortgage.



Debbie and David's house – original plan

Arrow letters refer to photos

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Mixing solid and permanent with short-term structures created 'elastic' living spaces. Having small, but linked, living units rather than one big house with multiple conventional rooms, allowed us to adjust to changing family and guest numbers. It gave separation but connection. We built a bedroom and bathroom onto the studio. A caravan, tent spaces and camp kitchen adjoining the shed provides additional space in the bush further away from the house. Each of these gave an opportunity to refine and finesse details of the accommodation while still being code compliant. Now there are numerous locations with different attributes around the property for visitors to stay, leaving space in the main house free from visitors.

Retrofitting is an ongoing process. Being close to the coast has caused corrosion problems requiring part of the roof and the solar hot water system to be replaced. With the knowledge of how salt spray accumulates, we may have originally used a simpler roofline. Similarly, some of the early projects, such as sealing the eaves, had to be revisited to improve the insulation and stop up draughty cracks. This points to the need for owner builders to pay attention to details and do quality work.

Despite this, some positive decisions made in the early construction have made retrofitting easier. We split the grey and blackwater piping and made sure that the greywater pipes were easily accessible. This has made building greywater wicking beds a whole lot easier.

Resilience

Our emphasis has shifted to intensifying food production as this represents a large proportion of Australia's carbon and ecological footprint. At the same time you have to balance the effort it takes produce the food and the time it takes to do it. Now most of the gardens and orchards are re-established and provide much of our own food. Things we can't grow we can often source from within 100km. Specialties including coffee and chocolate, we get from fair trade suppliers.

As the climate in the south west of WA dries out we have had to be more innovative around the use of water. Extra tanks have been installed and a new irrigation system has been built. Fire risk has become more acute. In 2011 bushfires wiped out 39 houses in the area. We were fortunate to be located 800m downwind of a golf course that blocked the progress of the fire otherwise we may have been burnt out. After this, we built an extensive multi-layered fire defence system with an outer ring of fuel reduction; reorientating gardens, tracks and irrigation systems to create a wet, green perimeter, and installed pumps and sprinkler systems on the house and studio.

The warming climate however, makes outdoor living a whole lot easier and more pleasant. Verandahs have been extended, shady arbours are being developed and the gardens are being reconfigured to create a number of living 'rooms' or spaces where people can interact with a degree of privacy.

Nature's challenge

Interacting with nature is a challenge. Originally the block was devoid of trees and a lot of effort went into fighting grasshoppers, the howling winds and

summer drought to establish trees and bushland. Now there are so many trees that the water table has been lowered and one of the groundwater supplies of irrigation water no longer functions. The tree roots invaded the septic system, breached the liner in one of the rainwater tanks and continue to pull nutrients out of the orchard. All of these have been very expensive to address.

The recreated bushland has dramatically reduced our carbon footprint. Installing a solar photovoltaic system has supported this. Now we have an over supply of home grown construction timber and firewood. Wildlife has returned with an abundance of possums, phascogales, bandicoots, frogs, reptiles, bats and many different bird species. These are all welcome, except possibly the possum that tries to find its way into the roof – despite nesting boxes provided in the bush for its comfort.

Artistic canvas

What is significantly different to the 1990's is that we now see the built space as a social and artistic phenomenon. It provides a centre for local artistic activities such as participating in Margaret River Region Open Studios, Sustainable House Day and community mindfulness practice in partnership with Margaret River's Tig-le House. We have visiting WWOOFers, artists and wandering souls who want some time to think about where to go next in life. Now the place has a bit of a life of its own; people who come here seem to get what they need, even if sometimes it's not necessarily what they want or expect.

The fabric of the building is also a design and artistic canvas where we prototype upcycled furniture and homewares. We recently renovated our daughter's old bedroom and bathroom. We used an old bath that we had in the shed, a whole lot of free ceramic tiles, mixed our own lime wash, and used a local red gum slab for the benchtop. The most expensive things were the pre-made cupboards. This was not ideal but we checked out their sustainability credentials and, while they were not perfect, they were good enough for us to live with given the limited time and energy to get the project done. If we had built fully recycled timber cupboards as we used in the house bathroom, we may never have finished the project. This is a typical of the issues that we are continually dealing with when doing regenerative design – time, money, provenance, footprint and so on. At the end of it we think we did well and it looks beautiful.

Patina and soul

Making bespoke objects for houses that are intriguing and attractive is important to Debbie who is focused on reducing waste. It is pretty disturbing to see all the lifestyle shops in Margaret River selling imported things which look nice but have a huge carbon footprint, are probably made in sweat shops and have nothing of a local story. We use selective purchase of low-waste products, all organics are composted, and old things are upcycled and repurposed into products. We find that people like things that have patina and soul and are creating these. Our current challenge is to build the recognition and interest in these products and what we are doing here.

Our house in Margaret River is still a work in progress. It is a test bed for sustainable and regenerative living that has been evolving over the past twenty-five years, and it will continue to evolve. Hopefully *TOB* will be able to deliver an update in another twenty-years' time. ◆

Debbie and David's property, Wilderness House, in Margaret River WA will be open for Sustainable House Day on Sunday 17 September 2017. There are a number of other houses in the area open on the day, so why not make a trip of it!

Links & resources

◆ **Ferart Design**

We make things happen. We convert designs into realities. We create new ways of thinking about the world.

0429 900 197, www.ferart.com

◆ **Ferart Studio**

Sourced from a stream of discarded, disposal or recycling materials, upcycled products tell a story. Workshops, skills development, art therapy, studio and gallery.

0409 108 950, www.ferartstudio.com

◆ **Sustainable House Day**

Open the door to sustainable living by touring some of Australia's most environmentally progressive homes on Sunday 17 September 2017. This unique peer to peer education is a valuable resource for anyone looking for inspiration, ideas and the key to sustainable living.

www.sustainablehouseday.com


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See website for original article on Debbie and David's house from *TOB 95 October/November 1999*

First take some mining junk...

By Annie Mayo

Photo: Annie Mayo

When David Galloway and Debbie Chambers began to build their home in 1990, the sight drew tourists.

'One tourist bus even came down the driveway. The driver had brought his customers to look and hadn't realised that we were actually here working until it was too late for him to turn around,' David laughed. It was the six metre, rusting, metal tower that had drawn them.

David and Debbie had been interested in the issue of sustainability well before it became a popular concept. 'We wanted to live in the environment in a way that wasn't damaging to it,' said David. 'Part of that idea was to take on-board the concept of re-cycling when building, without producing the hippy-gothic look. We wanted an interface between hi-tech and low-tech where hi-tech can be an aid to sustainability.' Using the tower was part of that concept.

The tower began life as a section of a 30 metre steel kiln. It was acquired for $300 from the mineral sands mining company David was then working for as an environmental manager. 'Mining companies tend to have heaps of junk available at their sites. Originally we'd been taken with the idea of integrating two metal mining hoppers into the house design.' When turned upside down, these huge circular pieces of equipment would have made two large rooms.

'Unfortunately, when the time came to make the final decision we decided they were rather too corroded to use,' Debbie explained. And so they settled...

See website for full extract.

The corrugated iron roof over the main entry with its cylindrical vaulted forms is hard to ignore.