



Since its inception in Darwin in 1981, Troppo Architects has pushed boundaries and agitated for change. So it's no surprise to learn that this year's Australian Institute of Architects Gold Medallists – founders Phil Harris and Adrian Welke – are concerned about regulations that actively hinder their common-sense approach.

Words **Rachael Bernstone** Photography **Peter Bennetts (portrait)**

# PHIL HARRIS & ADRIAN WELKE







TOP AND BOTTOM LEFT: Troppo's commitment to a shelter typology that embraced openness is evident in the firm's earliest projects, such as the 'Green Can' at Karama, which won a low cost housing competition in 1982



With one house commission to their name, they launched Troppo Architects in February 1981. Eschewing the Institute's eponymous naming protocol, they instead chose a term that conjured up images of people gone mad as a result of the oppressive heat and humidity of the build-up, which is relieved only by the drenching rains of the monsoon.

Their focus on designing for weather patterns and climatic conditions set their work apart from the outset, and led to the development of an identifiable 'Troppo' quality. It's evident in their earliest works – such as the Green Can, one of 11 winners of a Low Cost House competition (built at Karama in 1982) and the Kaiplinger House (Coconut Grove, 1983) – and the practice's latest award-winning project, the Strohmayr House, winner of the Tracy Memorial Award and an Award for Residential Architecture – Houses (Alterations and Additions) at the Northern Territory Australian Institute of Architects Awards in 2014.

These houses are all the more striking when one considers the incongruous project homes built in Darwin over the course of Troppo's lifetime. After Cyclone Tracy nearly destroyed the city's northern suburbs in 1974, the new houses were mostly ground-huggers, built from in-situ or precast concrete panels, featuring small window openings and screw-fixed metal roofs. The real crime here though is how poorly those houses perform in the tropics, and how they force their occupants to rely on air-conditioning to maintain comfort in the build-up and wet seasons.

By contrast, Troppo houses are mostly elevated, open to the breezes with louvred walls and windows, protected from heat and rain by external window shades and wide verandahs, and covered by large curved steel roofs. They are characterised by an economy and robustness of materials that reflect the remote location, but they also maximise efficiency and minimise waste.

"We tried to get the Institute to award [the Gold Medal] to Troppo Architects, not just Phil and I, because the contribution that the whole collective of 100 or more people have made is not only important, but inspiring for us to see," Welke says. "We have always worked collaboratively and collectively, and when we were in Darwin young people were the only ones we could attract to go up there: graduates were keen to come up and get involved. They have been the mainstay of the practice. Some have stayed with us and others have gone on to set up their own firms."

Harris attributes their enthusiasm for nurturing the careers of young architects to the pair's own relative youth when they established the practice 33 years ago. "We started young," he explains. "We each had less than a year of work experience after graduation, so we like taking on graduates who might have an empathy for Troppo. We enjoy watching them evolve, and there's a freshness and invigoration"

As friends at university, Phil Harris and Adrian Welke didn't follow the prescribed path. In late 1977, when fourth year students were supposed to gain internships at established firms, they drove around the country in a Kombi-van for four months with fellow students Justin Hill and Jim Hayter. Back at university, they produced a report – self-published on recycled newsprint and sold for 50c a copy – about their travels. Influences in Regional Architecture described variations and themes in vernacular buildings, taking in a broad sweep from Esperance to Innisfail, with chapters about Western Australia's goldfields, Pilbara and Kimberley regions, as well as the Top End and north Queensland.

After graduation, Welke set off once more for Darwin. He then encouraged Harris to leave his unpaid job in Adelaide and return to the city they'd found to be the most intriguing on their travels.

While working at the same local firm, the pair won a \$2000 history grant to document Top End housing. They established their own office just off Darwin's Smith Street Mall and completed a second report. *Punkahs and Pith Helmets: good principles of tropical house design* examined in more detail the early shelters built by local indigenous people, huts built by Macassan fisherman for drying trepang on the Arnhem Land coast, and a group of houses on Darwin's Myilly Point, designed by Beni Burnett in the late 1930s.

**"In addition, the steel industry is wonderfully organised and competent, which offers the means of quickly getting the bones of a building up – there is a cost-effectiveness, speed and orderliness in terms of getting more complex things built"**



RIGHT AND FAR RIGHT:  
The Kaiplinger House at Coconut Grove features curved steel roofs that became synonymous with Troppo's elegantly detailed use of robust and efficient materials

BELOW FROM LEFT TO RIGHT:  
Recent additions to the Strohmayr House won Troppo the Tracy Memorial Award and an Award for Residential Architecture in 2014



that youth brings to any practice: and in any case, we are all on learning curves."

To emphasise this point he relates the story of their first meeting with esteemed architect Glenn Murcutt. "Glenn was about 48 then and he wandered past our office in Darwin and noticed a mobile that we'd made out of an article about him in a newspaper, which was hanging in the front window," Harris recalls. "We went off for a beer, and Glenn said: 'of course you won't be an architect's arsehole until you're 40', and now that he's older I'm sure he would say 70. I suspect that's how it goes. We all keep learning and evolving and hopefully getting better: we see that hope in everyone."

Having found success in the Top End, the practice established satellite offices in Townsville and later Byron Bay, and Harris returned to Adelaide in 2000 and Welke moved to Fremantle in 2003, giving Troppo Architects a broader geographical and climatic range. Supported by teams in the five offices, the founders still work on projects in the Top End and remote indigenous communities in Western Australia, South Australia and central Australia, but they now produce buildings in capital cities and rural locations around Australia as well.

In spite of this expanded scope, there is still an unmistakable 'Troppo-ness' to all their projects,

The jury said the pair  
"...pioneered a unique approach to Australian architecture: irreverent but sophisticated, inventive with a tinge of larrikin spirit..."

but it's much more subtle and rooted in history and research than a signature style might be. Its essence can be found in those early research reports that documented vernacular buildings, where the main concerns were place, climate and the availability of resources.

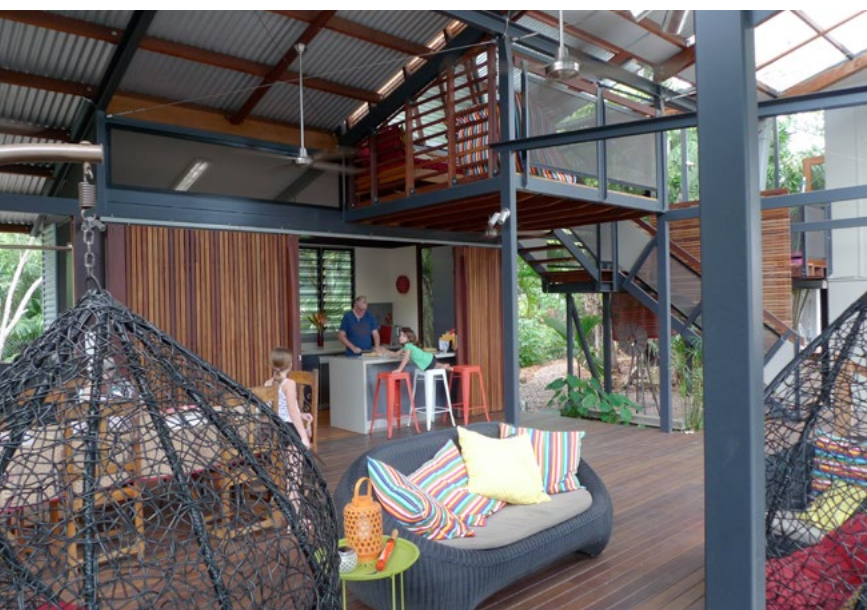
"There is an identifiable thing called Troppo, and it's the way in which the buildings respond to their setting,"

says Welke. "A sense of openness is what defines Troppo. Yes, there is material use and detailing that is typical, but the basic underpinning is openness."

"We like to think there's an honesty, a straightforwardness and a humble selection of materials," Harris explains. "But first and foremost we are dealing with shelter. It's not about show – it's about making something work for the climate and the place in which we are building."

From the outset, steel has played a pivotal role in achieving their objectives because it allowed them to experiment in an efficient and economic way. "If you go back to the Green Can and other early buildings, the whole objective was to achieve openness – the ability to play with large openings – so they relied upon a post-and-beam structure that was influenced by Japanese house principles," Welke explains. "We liked the simplicity and lightness of steel, and that strength and lightness have been central components of our structural steel frames."

The same method is equally valid in southern locations, where the climate offers the opportunity for more glazing than in the tropics, Harris adds. "Working down south, there is a similar requirement for a neatly carried out framing system, and steel is







TOP AND ABOVE: Caption on Rozak house... appearing in Stee Profile 78...

also excellent for achieving large cantilevers, such as roofs for shading purposes.

"In addition, the steel industry is wonderfully organised and competent, which offers the means of quickly getting the bones of a building up – there is a cost-effectiveness, speed and orderliness in terms of getting more complex things built," Harris says.

Having played such an instrumental role in the profession – the jury said the pair "pioneered a unique approach to Australian architecture: irreverent but sophisticated, inventive with a tinge of larrikin spirit" – and having built up a deep knowledge of what works best in different places (cities versus remote locations, tropical versus arid climates, single family homes in the suburbs versus employee housing on indigenous communities) Welke and Harris admit to feeling disenchanted by the current regulatory environment that stifles the sort of innovation they've become famous for.

"Ever since the building code introduced energy efficiency measures and created the star-rating requirements for housing, that has been a real problem for us in the tropics," Welke says. "It was counter to what you needed – the idea of creating an insulated box – when actually you can get by with shade and air movement in the daytime, and a way of dispersing the heat at night.

"The more strict the building code has become, the less likely one of our early houses could be built," he adds, "but they are still good Troppo houses: so is there something wrong with them, or something wrong

with the code? The code makes an assumption that everything will be heated or cooled, whereas some people can be comfortable without either."

Welke says that Troppo has been forced to work more closely with certifiers to ensure its current designs conform to the code, but as a result, "every project is an argument and a battle to get over the line".

Harris asserts that building code rules should be relaxed to allow people to live simply, and with less, if they choose to. "Because air conditioning exists, if people want to pay for that equipment, and the cost of running it, so be it, but there is a cost to all of us for that choice in the long term," he says. "The code should more seriously promote solar passive design, and provide an advantage for those people who seek to employ it.

"That would result in buildings that are a lot more dynamic: able to open up with shutters and blinds or, in the case of Darwin, the ultimate tropical house has no walls at all," he says. "If people want to live in the bush, in a shed, with a possum-skin coat in winter and a singlet and stabbies in summer, those people who are happy to live with less should be rewarded, but they are heavily penalised at present."

When asked how Troppo manages to get around the myriad and often conflicting requirements, and what they have learned over three decades of practice that young architects may not yet know – he responds with a laugh that "the Troppo approach is to be devious, yet legal". **SP**