

Making light of heavy

Simply designed, traditionally built

About two years ago, the story of a heavy timber frame raising day on the NSW mid north coast hinterland was featured ('A Winter's Tale,' *TOB* 174 Dec 2012/Jan 2013). That was for a guest cottage close to Tom and Jane's similarly constructed main house.

They've been living in the house for three years now and both buildings are finished – except for a few small detailing jobs, the kind that get postponed in every owner builder project. This one ticks all the boxes for me; aesthetically, ethically, and for being designed to suit a personal lifestyle rather than a perceived normality. I consider this third box a keystone of the owner builder tradition.

BY SHARYN MUNRO

Deceptive exterior

From the outside, the timber-clad buildings appear to sit lightly on the hillside, their clean and simple lines tinged Japanese. Inside, their heavy bones are revealed, as many of the timbers were from an old bridge that was being replaced just down the road. The whole skeleton is on show, brightly lit under the central clerestory roof.

They found the property in 2009 and rented nearby. Jane and Tom had each been through the 'living in shed/caravan

while building' experience, and had no intention of repeating it. Actually for Jane it had been a tipi, and for Tom, a bus/shed.

The couple had originally planned a simple eight metre square building with verandahs on three sides; the main feature had been the exposed beams below a standard ceiling and roof. Council said they'd need to put 150mm of insulation in the roof, which meant they'd only have had about 25mm of beam left exposed. They were at a loss what to do next. Meanwhile they built a shed and established a vegetable garden.

The amazing Andrew

Then they chanced to meet Andrew Turner down at Camden Haven Boatshed, fixing up his boat. When they visited his own house-in-progress on the Comboyne Plateau, they fell in love with his style of building. A boat builder, he'd never built a house other than his own before, but agreed to do theirs.

He suggested the full surround of clerestory windows, which gave a much higher roof. 'Andrew has the most incredible 3D brain,' says Jane; he built them a 1:10 model 'so we could play with it' Once he'd built the model, he worked almost entirely from that, barely looking at the plans, and never for actual measurements.

They had to change the dimensions of some of the timbers and redo the plans, which took a year to go through council. Jane and Tom were not impressed with the BASIX criteria, since features such as insulated walls and floor and solar panels didn't count (at the time).

But they were lucky that their building inspector liked what Andrew was doing, and appreciated that the house had more strength than needed. I can't imagine anyone NOT liking what Andrew does. What great luck for Tom and Jane to have met him!





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One tonne heart

It's really a squared-pole house, supporting a timber floor and roof frame. Concrete footings pads were set about 600mm into the ground, with the really big central pole pad set 800mm deep. This monster brushbox pole is 400 x 400mm square, weighing over a tonne. Special heavy duty steel stirrups for the poles were made up by Bennetts Steel.

The timbers were cut to size and the mortice and tenon joints made in Andrew's workshop. In May 2011 they were brought to site to rendezvous with a crane, the tractor and around 40 human helpers for the raising. It went up in eight hours, put together with pegs, splines, guiding hands and a few serious 'commander' wooden mallets.

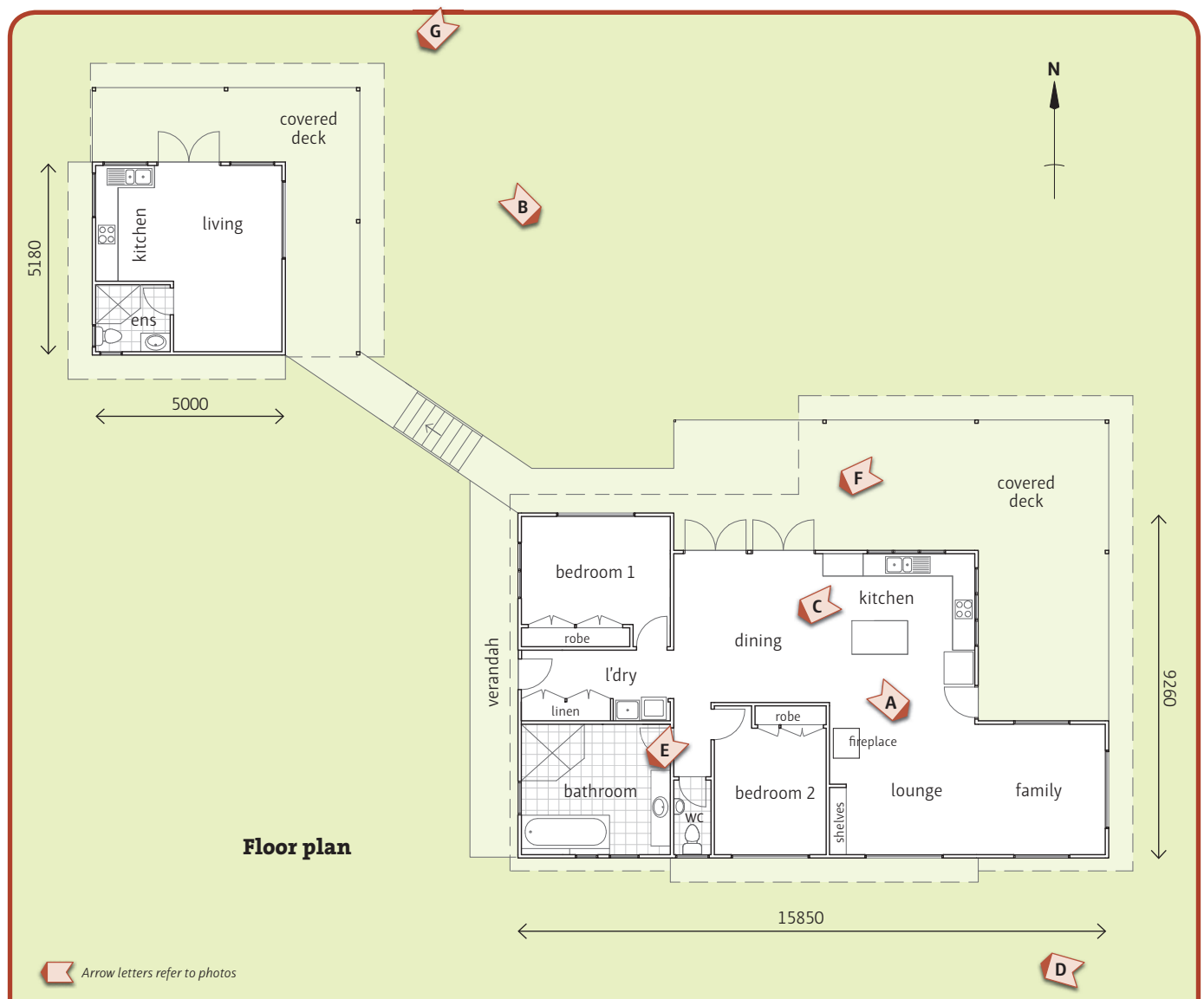
Andrew, his son, and his Canadian boat-builder friend Hugh built the structural part, with Jane and Tom as 'his dogsbodies.' They were dealing with old timbers, so once Andrew had cut his joins he would hand the piece to Tom for him to get all the muck off, using an angle grinder with a steel brush and manually digging out the dirt and gravel. The timbers that used to be driven over were especially rough.

It's amazing to see their archival photos of a full heavy timber wall frame, steel stirrups and all, swinging high in the sky as it's manoeuvred into place. My mind quails at the kind of thinking that went into assembling the individual pieces – which were named after friends and relatives rather than numbered. It's more like chess than a jigsaw. The frames

also had to be assembled in the right sequence for the crane to pick up.

Corrugated metal roofing was laid over 150mm double-sided smooth Colorbond panels with polystyrene filling, as used for refrigeration unit walls. These provide excellent insulation and a finished ceiling all in one. Similar roofing panels have a corrugated exterior side of the sandwich but they worked out that it was far more economical to buy wall panels and screw the corrugated roofing sheets on top. At 4 x 12m each, the panels were manageably light, recalls Tom.

On the downhill side, the house is set very high, with underfloor steel posts in between the poles. Both agreed they wanted good visibility under the house to easily check for termites etc. They anticipate that the many planted shrubs



and trees will grow to soften the look of the underside structure.

Tallowwood wins

While the house is mainly clad in vertical ship lapped tallowwood, on the south they partly used vertical Woodland Grey *Colorbond* panels. Tom says it would have felt like too much wood visually but also this face gets the weather and if the timber eventually needs replacing, it will be less work.

Andrew was adamant that tallowwood was the best exterior timber to use, due to its high oil content. Much of the tallowwood was milled at Comboyne, at a local mill now closed due to the dominance of the mighty Boral; a story too common to be anything but sad.

Tallowwood was native to the area but is now scarce, and the small mill, deprived of State Forest access, had to source it from private land.

Because of prolonged wet weather, there was difficulty accessing the timber, so Jane and Tom were living in a blue foil wrapped house for a while. Tom and Lyndon, a friend from Murwillumbah, laid the cladding and the large expanse of tallowwood decking. Jane oils both cladding and decking once a year with exterior grade *Organoil*.

I comment on the rows of timber plugs over the screws on the cladding on the verandah. Tom says that Andrew preferred to plug them, and 'in a weak moment' he agreed, but only on the most visible walls. It is a very slow job, which is why some walls still remain unplugged!

Each timber plug has to be fashioned on Andrew's special machine, banged into position and, chiselled off level.

Straw surprise

The cladding actually went on last, over the foil and the interior wall panels. The Japanese feeling of these buildings is even more so inside, with timber strips covering the joins in the wall panels.

These are recycled strawboard acoustic ceiling panels with an interesting history. Originally from an old Union building in Sydney, they were bought by a bloke in Dubbo who stored them in his shed, but died before he could use them. They are made of straw compressed between cardboard sides. The cut faces look like palm tree wood, and are 'like a rock to cut



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across' says Jane. The cardboard face was painted with a roller, and the walls look great.

A modern equivalent is made by the same Australian company, Ortech Industries. As always, I was delighted to come across an environmentally sound product that was new to me; internal wall claddings are so often a compromise, with plasterboard often the winner.

Working around the square

The central square of the house, where the wall plate is about three metres high, forms the open kitchen/dining/living area. From it, a skillion roof makes a covered and lined verandah on the east and north-east sides. The south-east corner was enclosed to extend the living room as a family cum yoga room, a belated change of plan that also acts as a weather block for the verandah.

Over the multi-fold glazed door main entry, there is an awning hung from a metal frame above. Jane had worked out the angles to allow winter sun entry, so it was made 1.3m wide. However they have found it allows summer sun to enter the kitchen and dining area just in that interim seasonal time, so they have two large umbrellas set up to block that when needed.

The western skillion caters for a bathroom and separate toilet, a laundry with external door to a narrow verandah, and the master bedroom on the north-western corner, where no awning stops the morning sun entering.



L-R: Main bathroom chooses views over privacy; solidity and complexity in the joinery attracts the eye; multi-fold glazed doors for passive solar and indoor-outdoor living.

Triple faceted timber steps from an indented corner of the verandah were built on a steel frame, designed by Jane and specially made by their friend Barney. The steps lead down to a gravelled flat area, with a fire pit and seating made from logs and old slabs that came down their creek waterfall in a flood. Leftover bridge timbers that were not up to scratch were used to hold banks for gardens, along with rocks that are plentiful on the block.

The steel walkways from the double carport to the house and to the guest cottage were leftovers from the desalination plant construction in Sydney. I had thought these may have been specified for fire safety but no; all that was required for fire safety were external metal fly screens and a pump.

Light and heat

Inside, the main house is flooded with light even on the dullest day. The clerestory windows are double glazed, with central opening louvres in the east and west sides to let the heat out. The couple feel these are not as effective as if they were at the apex of the roof.

Main windows are a combination of fixed and louvres. They put the windows together themselves, and are very happy with them. A primary criterion was to



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keep as much contact with the outside world as possible, and this has been achieved, since they can see the moon and stars and treetops through the clerestory windows as well.

In winter the house holds the heat 'beautifully,' from the sun and a small slow combustion *Lopi* wood heater. Having owned one of these myself, I can vouch for their superior efficiency.

Against the plain 'White Sand' painted wall and ceiling panels, the timbers rough and smooth are contrasted and featured, as are the many still life and slightly surreal paintings by Tom's late mother, Virginia Ferrier. The open plan living space is airy and uncluttered, with the stunning roof structure the main interest, and the views to outside a close second.

The couple say that 'the biggest decorating challenge was to complement the beauty of the frame, while keeping it the central focus.'

Timber love

Flooring was locally made of recycled timbers, mostly blackbutt, and some tallowwood, laid over *Insulwool* underfloor insulation. Nearly all the timber was locally sourced, except for the kitchen bench tops made from Queensland maple slabs. Cupboard sides are silver ash, while silky oak was used for the stunning bathroom cabinet and bookshelves, built by Andrew to Tom and Jane's design.

In the sunny main bedroom, the exposed rafters on the lower ceiling and



PHOTO: JANE AND TOM'S ARCHIVES



PHOTO: GEOFFREY SNEIGROVE

the timber strips on the panels create a charming blend for me of Tudor and Japanese style. From their bed they look straight out to their much loved large tallowwood tree, home to kookaburras and wood ducks amongst others. Jane insisted on a swing there, suspended from a branch seven metres up; 'It feels like you're flying,' she says. I feel a little nauseous at the very thought.

The winter shade from that magnificent tallowwood does affect the passive solar heating efficiency a little. They say they thought of siting the house further back to avoid this but they didn't want to be looking uphill, and the house would have had to be even higher.

The smaller guest room/study doesn't have a ceiling, just high panelling open at the top. Guests do like being able to see through the clerestory windows, but it's not auditorily private. Jane and Tom say they did it this way because they didn't want to lose sight of the beauty of the frame – or have a ceiling for rats to inhabit.

Utilities

Next to the separate flushing loo is the serenely simple bathroom, with a bath and a view. It's up high and private, so no blinds, although Jane says some visitors become self-conscious. In a high rainfall area, they've fed water from all roofs into a pipe to run downhill to their nearly 60,000 litres of water storage. The solar hot water system is of the evacuated tube design, which they've found very satisfactory.

Clockwise from above left: A crane was used to do the heavy lifting; the assembled frame looks fantastic; one of the beautiful spline joints; Tom with the handy 1:10 model.

For the 3.2kW solar power grid-connected system, down near the workshop, they built a multi-purpose roof that became the chook shed and the alpaca stable. The vine-decked netted chook run slopes downhill from it. They are hoping that new battery technology will allow them to go off-grid; both have lived on stand-alone systems before. All lights are LED.

Catering for company

Tom and Jane, who have been together for 15 years, have five grown children between them; they always said that if they ever built a house, they would have a separate self-contained space for guests and family. So they made one here, connected by a walkway, but private, thus

enabling them to keep their own living quarters small, and perfect for their own needs.

They built the guest cottage immediately after the house, given the excavation for it was there, and while the place was still a building site, with all the materials strewn about. They also felt that if they delayed or began to seriously count their pennies, they might not get around to it.

This guest house did not use as much recycled material but did use a great deal of leftovers from the main house. It is one large open room plus a bathroom. Tom and Lyndon built the kitchen benches and the bathroom cupboard. It's a delightful place, with an eye-catching and somewhat mind-bending exposed roof structure.

Jane designed the 5 x 5m building then said to Andrew, 'But we don't want a centre pole,' as the space was too small for one. So he suspended the 'centre pole' from the roof. I am reliably informed by



PHOTO: JANE AND TOM'S ARCHIVES



PHOTO: GEOFFREY SNEIGROVE



our *TOB* heavy timber guru Rob Hadden that this structure is basically a hipped roof with hanging pendant and four-way struts. The four main rafters come from the corners and meet at the apex to form the hips; the hanging pendant and struts make it self-supporting.

Rationally I accept the technical explanation; irrationally, looking up at it, I can't help but cross my mental fingers.

On their 16 hectares, they have one kilometre of creek frontage, where they have spent many hours cleaning it up, removing rubbish (including old car bodies) and weeds like privet. On their house hill, once all the building had finished they started planting in earnest. Tamarillos and bananas flourish on the septic transpiration area, and fruit and nut trees of every variety dot the slope. The healthy vegetable garden benefits from their alpacas' manure.

The buildings are the most subtly spectacular I have seen, if such a contradiction is possible. In this naturally picturesque setting, with rapidly growing garden plantings, the home that Tom and Jane have created is very special and will only grow more so. Simplicity, strength and suitability; perfect for living. ♦



Links & resources

◆ Robert Smallwood

Building Plans, Laurieton.

02 6559 5222

www.robertsmallwood.com.au

◆ Sustainable Timber Frames

Handmade, exquisitely crafted, mortise and tenon joinery; Andrew Turner, Comboyne

02 6550 4392

www.sustainabletimberframes.com

◆ Austec Panel Systems

Panelex insulated building panels.

02 9756 4334

www.austecpanels.com.au

◆ Endless Solar

Australian made evacuated tube solar hot water system.

1300 889 589

www.endless-solar.com.au

◆ Ortech Industries

Durra Panels, made from compressed wheat or rice straw.

1800 805 919, www.ortech.com.au

◆ Boutique Timbers

Supplier of high quality furniture grade timber.

02 6585 8296

www.boutiquetimbers.com.au

◆ The Green Mill

Hand made flooring from recycled timber.

02 6562 8252

www.oldtimberflooring.com.au

◆ Porter's Paints

Water based, durable paints still made the traditional way.

1800 656 664, www.porterspains.com

◆ Bennetts Steel

Suppliers of steel stirrups. Wauchope.

02 6585 2851

www.bennettsteel.com.au

