

INTERNAL STRAWBALE RENDERING

Home at Last

In the third and final instalment of Alan and Fiona's long march towards a finished strawbale home, the pair recount the internal rendering process that led to a beautiful result.

by Alan Burdon and Fiona Kotvojs

Narooma, New South Wales

WE RENDERED the inside of our home with clay, because it breathes better, is more hydroscopic than a lime render and is easier on hands.



The first thing we did was to fill the gaps between the bales using a thin stick to find smaller holes than my hand could.



We found that twisting a handful of long straw was best: folding it in half and pushing it into the gaps with the stick. This filled smaller spaces, got more straw in further, and stayed in better.



Next we pruned the walls with the hedge trimmer. It sometimes pulled straw out that had not been put in using the 'twist' method. For the fill (as against the bales) we used a pair of hand shears which were more effective.

We used the chainsaw to shape windows and trim bales. However, it is hard to prune bales back a significant amount. Some were as much as five centimetres out of line. We couldn't prune these as the wire holding them down was in the way and we cut it accidentally a couple of times. Where the centre of the end of a bale protrudes in front of a window you can't successfully cut it.

The lesson is to make sure the walls are straight before using the tensioning wire.

We had got to this stage when Frank Thomas of Yesterday-Today-Tomorrow, Straw Bale Construction returned with Priscilla the Pump.

The external lime render sprayed everywhere when a hose joint burst due to an operator error (pointing the hose the wrong way). It was hard to remove and stained the surface. As I didn't want a repeat with the clay render we covered all surfaces thoroughly with plastic. The tape was placed where the render should have gone to, but we didn't get this right in a number of cases leaving tape buried in render or strips of wall covered in clay. Fortunately the clay can be readily washed off.

However, the clay render didn't stain and was more controllable — or maybe we'd got better at controlling it.

Uncertainty about the final thickness left some power points proud of the wall. These we moulded into organic bulges that we will have to learn to love.



4
 We sprayed the walls with the render pump. We found it best to put one coat on the inside of openings, then do the wall and then add a second coat to the opening for a thick enough coat. We levelled the first coat using screeds. This left a very uneven surface.



6
 We then sprayed on the second coat.



8
 A corner before and after spraying.



5
 Once it was fairly smooth we placed fibreglass strips around all the openings — the weakest point.



7
 We levelled again and placed the fibreglass mesh across the entire wall. We also put fibreglass down the corners of the wall, cutting 'feathers' for added strength. Then we levelled again and came up with the final surface.



9
 Some of the render over a window opening peeled. We cut away the layers of fibreglass and render and then started this bit again.



10
When we redid it, we used a Frank Thomas technique to staple the fibreglass mesh to the wood frame, cob, and then pull the mesh over the cob and work it in as usual. It is much stronger. If we had our time over again, we would do it this way.



11
We filled the wheelbarrow and a metal tray with render and completed levelling, putting the fibreglass mesh in and smoothing the surfaces by hand. This shows the final result (without the final coat and paint).



12
Kitchen wall — this will be lined.



13
Lower floor wall (split view). The section between the rafters will be above ceiling level. The plastic prevents rain getting between render and wall.



14
Upper floor bedroom. Power point shown at bottom.

Final Coat

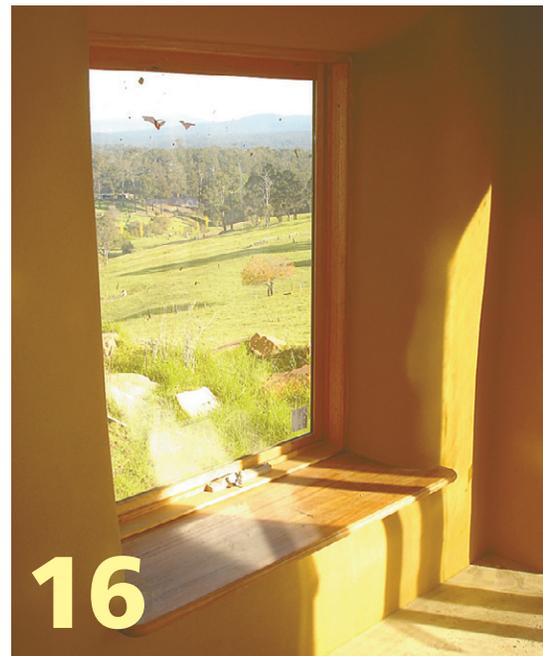
Frank came for the final coating, with his offsider Hardy, who was particularly skilled at finishing. We didn't incorporate any fancy work such as nooks or shelves. These can add to a house but we had expanded our window sizes and had tiled some of the walls, so there were not many places where we could add such features.

Alan had made and fixed the chunky Stringybark windowsills beforehand. Ideally we'd have fixed the ceiling Gyprock too but electrical issues held that up. We nailed up temporary strips of Gyprock wrapped in cling film to which to finish the render.

Frank and Hardy did the final rendering. Frank brought the clay in drums as a slurry which just needed stirring and then mixing with tiler's sand. There is a compromise here



As the work proceeded various repairs and fillers were made using fibreglass. Door, windows frames and sills were masked for protection. Sponge floats produced a smooth finish, which looked like brown sponge rubber moulded around openings.



The render will require a surface finish to prevent dusting. We had intended to use clay paints, but the final colour, a warm honey-brown, is so appealing we will simply seal it with casein. This will let it breathe and maintain the special atmosphere of clay homes.

as more clay means more shrinkage and cracks and more sand means a more friable surface. Frank, as the final result proves, got it just right.

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