

IN BRIEF

**LOCATION** Near Falmouth,  
Cornwall

**TYPE OF PROPERTY**  
Converted barn

**BEDROOMS** 3

**PROJECT STARTED**  
May 2019

**PROJECT FINISHED**  
May 2020

**SIZE** 178sqm

**LAND COST** £350,000

**BUILD COST** £422,000

# In an ancient land

Deep in the Cornish countryside, an old barn and hay store lay forgotten and decaying until one couple reinvented them as an eco-friendly home

WORDS ALICE WESTGATE PHOTOGRAPHY ANTHONY GREENWOOD





The timber cladding on the extension was charred using shou sugi ban, the Japanese method of burning and preserving wood



**T**he lure of Cornwall's wild landscapes and beautiful beaches drew Kim and Rich Butler halfway across the globe. 'We promised ourselves that if we came back to live in England we would move to the county,' says Kim. The couple met while they were living in Thailand and working as scuba diving instructors. 'The Cornish climate is pretty tropical, and we wanted our children to grow up by the sea and to be happy in the water,' she says.

But Kim, 38, and Rich, 44, were frustrated by the lack of suitable properties on the market. 'When we came across a 42-acre site with a cluster of outbuildings we asked the vendor if it could be sold as different lots,' says Rich. 'They agreed, so we bought 12 acres and four farm buildings, all of which had planning consent. It was a very lucky find.'

The couple decided to tackle the main barn first. The low stone building had an attached two-storey hay store to one side, and its upper level was reached via an external staircase. 'There was still hay inside, along with various car parts, sofas, tyres and hundreds of plastic sacks filled with spent mushroom compost from a nearby farm,' »



**ABOVE** Opening on to a deck overlooking the garden, the sliding doors are deeply recessed to provide shade from the sun as well as rain cover







A narrow glass link draws sunshine into a potentially dark area of the living room. Vintage furniture includes an Ercol sofa and a filing cabinet bought on eBay

says Kim. Big sections of the roof had caved in, and the upper floor had collapsed.

Kim, who has a background in kitchen design and works for a charitable children's adventure centre, knew it had the makings of a home. Rich, an audio engineer who teaches at the nearby university, needed a little more convincing. 'All I could see was leaning walls that needed underpinning,' he admits.

The existing planning permission covered the simplest of conversions, but a more exciting design took shape when the couple consulted Kast Architects. 'At first the practice were too busy to start right away, but then preliminary drawings arrived,' recalls Kim. 'It turned out they were inspired by the plot and couldn't wait to get going.'

Lead architect David Jones loved the barn's private location surrounded by ancient hedgerows and mature trees. 'It had a secret charm and felt wild and forgotten,' he says. 'Kim and Rich asked us to design something sensitive to all this and not over-polished.'

### **The lofty kitchen and dining space is high enough to accommodate an internal staircase to the upper hay store**

Though they all wanted to retain as much of the old structure as possible, the low ceiling in the single-storey section – designed for animals rather than humans – felt restrictive. The solution was to raise the roof by 1m and to fill the gap between this and the original stonework with charred larch. 'From the outside, it's clear which part of the building is old and which part has been added,' says David. 'This approach seemed to tell the story of the barn's evolution more honestly, and it won over the planners.'

The result is a lofty kitchen and dining space that is high enough for an internal staircase giving access to the upper hay store, which has a bedroom each for Juno, six, and Noah, nine, plus a family bathroom. Kim and Rich's bedroom is directly below.

Opening off the kitchen-diner is a charred larch-clad extension with 7m-long sliding doors leading from the living room into the garden. A glazed section measuring just 50cm wide marks the point where the old structure meets the new. 'I absolutely love the look of the glass against the stonework and the way that the granite is washed by the sun,' says Kim.

Keen to make the barn as eco-friendly as possible, the couple installed an air-source heat pump and huge amounts of insulation, plus cabling on the extension's flat »







All the rooms in the house lead off the new kitchen-diner, which has a materials palette of concrete, plywood and stone

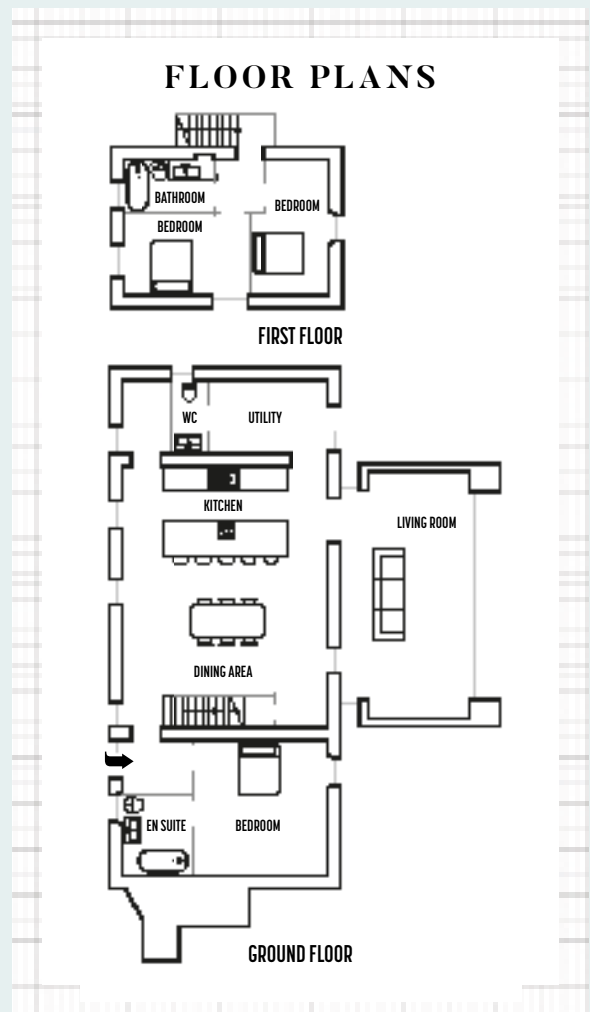






The roof trusses are made from Douglas fir and the lighting includes a chandelier Kim crafted from a hula hoop wrapped in bare-bulb pendants

**RIGHT** Raising the roof by a metre made space for the plywood staircase. It leads to the children's rooms on the upper storey







In the main bedroom, the wall above the bed was whitewashed for added brightness and to hide a patchwork of stone and concrete

**RIGHT** Graphic floor tiles are the focus in the family bathroom, with black grouting and brassware continuing the monochrome palette





**The house is in such a remote spot that Kim and Rich toyed with the idea of making it completely off-grid**

roof so they can add solar photovoltaic (PV) panels in the future. The high thermal mass of the concrete floor acts as a radiator in winter and provides a cooling surface in summer, while a mechanical ventilation with heat recovery (MVHR) system keeps the indoor air fresh and warm.

The house is so remote they considered going totally off-grid, with water provided by a stream in the garden, but the cost of a filtration system was so high they decided to bring mains water across the three neighbouring fields instead. They did add their own sewage treatment plant, though, plus a sprinkler system in case of fire.

Kast project managed the build, holding weekly meetings to discuss progress. 'We felt extremely lucky to have such a great team involved throughout the whole process,' says Rich. The only hitch came when a winter of incessant rain repeatedly filled up the hole that the main contractors were digging for the sewage treatment plant. Moving it to higher ground added a few weeks to the schedule, but the couple's finances stayed on track thanks to the detailed costings that had been drawn up by Kim and Rich's quantity surveyor. 'It was reassuring to be able to monitor the budget so closely,' says Rich. 'Our total spend was always under control.'

Kim and Rich were also heavily involved, labouring on site to remove some of the concrete pointing and level the garden. Kim even charred every single plank of larch herself, a job that took more than two-and-a-half months. 'We wanted to put our own energy into the house,' she says. 'Making our mark on the building has given us both a huge sense of satisfaction.' **GD**





The position and size of the original windows and door openings were retained, and the old staircase still stands to the right of the two-storey former hay store



**ABOVE** The living room extension aligns with the kitchen-diner, which has six rooflights to boost light levels. The couple have plans in place to convert the adjacent outbuildings at some stage in the future

## SUPPLIERS

### PROJECT TEAM

**Architect** Kast Architects ([kastarchitects.com](http://kastarchitects.com))

**Main contractor** 3C Construction  
(07403 155945)

**Structural engineer** Entas Consulting  
([entasconsulting.co.uk](http://entasconsulting.co.uk))

**Quantity surveyor** Ed Crossley & Associates  
([eca-qs.com](http://eca-qs.com))

### STRUCTURE

**Windows** Velfac ([velfac.co.uk](http://velfac.co.uk))

**Sliding doors** Lux Windows & Doors  
([luxwindowsanddoors.co.uk](http://luxwindowsanddoors.co.uk))

**External timber doors and roof trusses**  
Marnick Joinery ([marnick.co.uk](http://marnick.co.uk))

**Air-source heat pump, hot water cylinder and underfloor heating** Nu-Heat ([nu-heat.co.uk](http://nu-heat.co.uk))

**Concrete floor** Blackman Rowe  
([blackmanrowe.co.uk](http://blackmanrowe.co.uk))

**Glazed link** Adept Glaziers ([adeptglaziers.co.uk](http://adeptglaziers.co.uk))

### FIXTURES AND FITTINGS

**Plywood kitchen and staircase**

3C Construction

**Kitchen worksurfaces**

Kernow Stone

([granite-worktops-cornwall.co.uk](http://granite-worktops-cornwall.co.uk))

**Family bathroom floor tiles**

Tiles Direct ([tiles-direct.com](http://tiles-direct.com))

**Duravit sanitaryware and Crosswater**

bathroom taps, shower and towel radiator

CP Hart ([cphart.co.uk](http://cphart.co.uk))

### FURNITURE AND ACCESSORIES

**Kitchen stools** Sklum ([sklum.com](http://sklum.com))

**Bed** Beds Direct Warehouse

([bedsdirectwarehouse.co.uk](http://bedsdirectwarehouse.co.uk))

**Single-bulb pendant lighting**

Creative Cables ([creative-cables.co.uk](http://creative-cables.co.uk))

**Garden furniture**

Argos ([argos.co.uk](http://argos.co.uk))