



LIGHT FANTASTIC

The cathedral-like proportions of this brick and timber barn on the Essex/Sussex border have been used to dramatic effect in this ambitious renovation project

Words: **Alison Wall** Photography: **Steve Lancefield**

Listed Barn

Homeowners Jeremy Witt and Hannah Smith have renovated this listed timber and brick barn to create a light-filled contemporary home. The original oversized openings, Welsh slate roof and brick walls sit alongside new larch cladding which has been left to weather to its natural silver grey. "Agricultural buildings were originally left to weather in this way," says architect David Nossiter. "The black paint used to paint timber barns is a more recent tradition." ➤



Project Notes

Homeowners

Jeremy Witt and Hannah Smith

Project Barn conversion

Location Suffolk

Build time Oct 2013 - Oct 2015

Size 550m²

Construction system

Timber frame/red brick

Plot cost £249,000 (2013)

Build cost £500,000

Value £1.7million

PROJECT TIMELINE

Plot purchased

Oct 2013 (with planning permission)

Start on site Oct 2013 (demolition, footings, structural repairs, roof)

Glazing/cladding

Sep 2014 - Jan 2015

First fix Jan 2015 - Apr 2015

Decorating Sep 2015

Occupied Oct 2015

SUPPLIERS

Architect David Nossiter:

davidnossiter.com; 020 8251 8978

Groundworks Richard Hoggar:

07749 872457

Carpentry Wyvern Building

(Colchester): wyvernbuilding.com

Roof RT Roofing (Colchester):

rtrroofingservices.co.uk

Concrete floors Creation Flooring:

creationflooring.co.uk

Glazing Glazing Vision (rooflights):

glazingvision.co.uk; Cantifix (large

gable doors): cantifix.co.uk; ID

systems (windows): idsystems.co.uk

Joinery and kitchen

Lumi: 07736 676351

Cladding Thorogood Timber:

thorogood.co.uk

Birch ply panels

James Latham: lathamtimber.co.uk

Concrete worktops/sinks

Leigh Cameron: 07504 521294

Interior design/lighting

Hannah Smith:

churchillbarn@gmail.com

SELECTED COSTS

Architect	£40,000
Structural repairs	£30,000
Roof	£45,000
Glazing	£70,000
Polished concrete	£50,000
Carpentry	£35,000
Joinery	£35,000
Heating/plumbing	£25,000
Electrics	£15,000



Unloved Structure

While the barn was in good structural health, missing roof slates allowed rainwater to enter (LEFT); dozens of doves and pigeons had taken up residence; and wet and dry rot were both evident. "Something had to happen; if it had been left much longer, it would have fallen into bad disrepair," says homeowner Jeremy Witt.

Warm Roof

The original cruciform floor-plan of the barn has been retained, with a collection of smaller spaces surrounding it (OPPOSITE AND BELOW). The roof (OPPOSITE) is a 'warm roof' construction – a new timber deck has been installed above the original roof structure with insulation above it. This allows the original structural timbers to remain visible without compromising thermal performance. To achieve this, the roof was raised by 200mm, which required listed building consent. Two large rooflights, each 3m², bring daylight deep into the interior of the 8m-high central spaces.

Ground Floor





ARCHITECT'S VIEW

Architect David Nossiter says: "When I walked in, the space was very impressive. It was tall and vast – I was blown away by the scale of it.

"When Jeremy bought the barn, there was already planning permission in place to convert to a dwelling, with all the spaces divided up with plaster walls. It would have been such a shame to divide it up and spoil the essence of what the structure is about. So I chose to do the opposite and not touch the walls.

"We did discuss the option of a mezzanine, but the clients decided: 'No, let's leave it as it was, as a barn.' So we have this large main space with smaller spaces around the outside; each bedroom leads onto a terrace and looks out on to a different elevation.

"I also chose to make furniture out of plywood, as a way of keeping costs down as well as physically zoning the space. It means that the spaces are still open plan but Jeremy and Hannah also have more private areas; it also brings warmth and unity, as we've used the same material throughout." ➤





Original Openings

Jeremy and Hannah appointed three different glazing companies to install the bespoke glazing in the original openings (ABOVE AND OPPOSITE). Large sliding doors provide a strong connection with the outdoors, where the simple landscaping and planting (ABOVE) echoes the site's agricultural past. The paving uses bricks reclaimed from the demolished buildings on site.

Agricultural Heritage

The central reception space has exposed original timbers; one bears a carving of the date 1836 to show the year of construction. "It's a beautiful building and we wanted to retain as much of the barn's original qualities as possible," says Jeremy. The main part of the barn (ABOVE) has been kept deliberately open and has already housed an art exhibition and community event. The birch-faced plywood (OPPOSITE) has been sealed with a clear UV varnish so that it does not yellow, while the original floor has poured concrete floors with underfloor heating. The 10mm floor joints (OPPOSITE) help to delineate the spaces in the mainly open plan interior.



Just one site visit was all it took for Jeremy Witt and Hannah Smith to abandon their original dream of a contemporary self-build and take on the renovation of this listed brick and timber barn teetering on the edge of dereliction. Cost was one factor, says Jeremy: when the barn came on the market, in 2013, property prices were relatively low. More importantly, the couple were captivated by the beauty and scale of the enormous cruciform structure, originally built as part of the Model Farm movement to allow multiple farming tasks under one roof.

Despite only paying £249,000 for the barn, Jeremy and Hannah were faced with 550m² of brick and timber to renovate for £500,000 (a modest £900/m²). To cut costs, they used materials already in the barn, including those reclaimed from the demolition of two 100m²

lioned windows and conservation rooflights.

Jeremy and Hannah moved into a caravan on site for the project. “It’s a good exercise in de-cluttering and not as bad as it sounds,” says Jeremy. Being on site also allowed them to be heavily involved as project managers, calling on members of their families with construction and renovation experience when needed. “We did much of it ourselves and loved every minute of it,” says Jeremy. “It was so different to the day job.”

Repairing the Roof

Fixing the roof was a huge and time-sensitive part of the renovation, with a team of four roofers working solidly on the roof for three months. They stripped and reused 12,000 Welsh roof slates from the demolished buildings on site, and installed local Douglas fir timbers and insulation

Brickwork and Timber

To ensure that the huge barn offers cosy spaces for the homeowners, architect David Nossiter has created smaller spaces such as the snug (OPPOSITE). The combination of original brickwork, exposed timber trusses and timber floorboards help to bring a sense of warmth to the space.

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attached buildings. They also did much of the work themselves, from demolition and clearing the site, to project management and polishing the poured concrete flooring.

“A main contractor would have been way too expensive,” remembers Jeremy. Instead, they commissioned subcontractors for the glazing, roofing, structural repairs and flooring. Luckily the barn was in good structural health; the only unexpected expense was stripping out and replacing 36 tie beams that were failing and causing the structure to bow. “That was the only thing that tripped us up,” he adds.

Planning permission for the barn’s renovation – a contemporary, largely open plan scheme by architect David Nossiter – was lengthy but ultimately successful. The design retains the internal floorplan, including all the large agricultural openings created when the building was erected in 1836. The cruciform central space forms the kitchen, dining and circulation areas, with smaller spaces flowing off for bedrooms, a library and study. The design also incorporates contemporary detailing such as simple rooflights and large unadorned openings, rather than mul-

for the ‘warm roof’ construction (a technique that involves building a new timber deck above the original roof to allow for modern standards of insulation while keeping the original timbers on view). “The roofing almost killed us,” laughs Jeremy. “To see the barn stripped to its skeletal state for so long makes you realise that this is a massive part of the build. Although the barn was structurally sound, it was quite stressful. It was critical that we didn’t leave the roof open for the winter. We were fairly lucky, as we had a dry summer and finished that August. When the last slate went in, we thought: that’s it!”

The barn’s original rooflights, including the one over the new kitchen space were retained; the original plastic was stripped out and replaced by simple glass rather than the conservation rooflights initially favoured by the local conservation officer.

Meanwhile, xx carpenters formed openings ready for glazing, installed new larch cladding on the exterior and added an internal wooden framework to create an insulation-filled cavity wall. “Insulating a barn is quite a challenge,” says Jeremy. “But we have exactly the same fuel bills ➤





Honest Material

Concrete dividers, originally part of the barn's milking parlour, have been converted into bays for the couple's bicycles and motor scooter (ABOVE). Poured polished concrete has also been used for most of the home's flooring and kitchen top (BELOW), which has white quartz pigments added.

as our old town house — we have really gone above Building Regs here.”

Most of the barn's heat is generated from a biomass boiler, assisted by a mechanical heat and ventilation system that recirculates the warm air that rises into the high vaulted spaces.

Unique Interiors

Interior remodelling and fit-out was the next major task. Rather than losing the cathedral-like proportions of the open plan interior, oversized freestanding furniture from birch-faced plywood sheets has been installed in place of walls; the furniture also doubles as partitions and screens. The couple opted for polished concrete flooring. “We like the honesty of concrete,” says Jeremy. “Everyone wants to touch it, as it's very tactile. When it's polished and sealed, it's a beautiful material. You seal it and that's it.” The couple also kept the lighting simple, with the original switch boxes retained and exposed metal ventilation grilles repurposed to house the lighting.

“Dad summed up the barn,” says Jeremy. “Space is such a luxury, so enjoy it. It's amazing — there is so much light in the house: even on a dull day the spaces are still bright and airy. It's a very peaceful place to live.” ➤





Contemporary Palette

Birch-faced plywood has been used, both to create furniture and to separate different spaces. "When we first went around the barn, we got lost," remembers Jeremy. "It took three or four goes to get our bearings. Now it is obvious, as we have natural walkways through the building." Steps leading up to the bedrooms (LEFT) also help to define the spaces. **H**