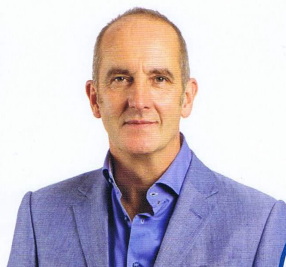


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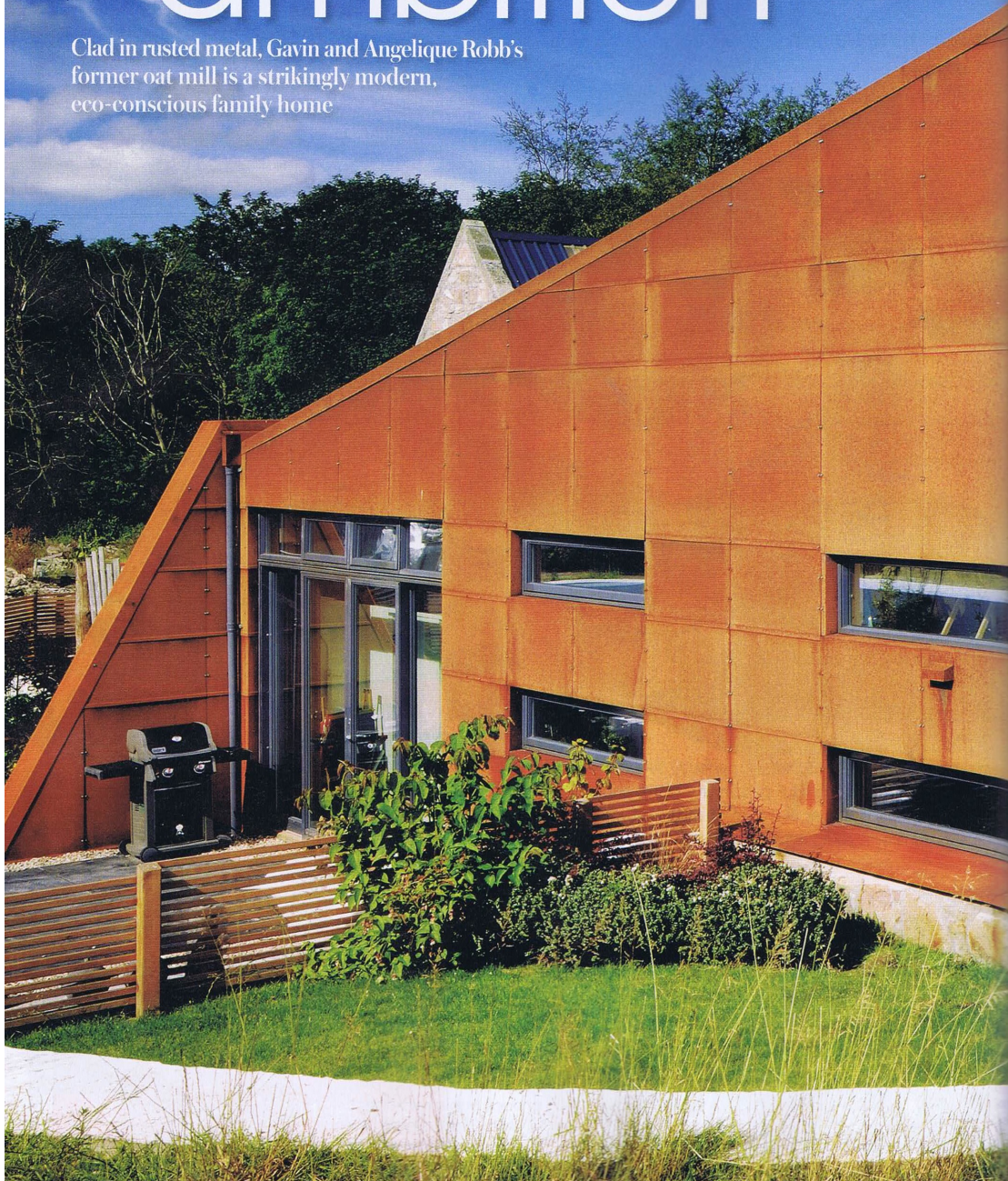
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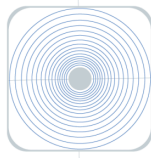
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TV exclusives ◆ Converted mill ◆ Danish new-build ◆ Extended terrace ◆ Rural retreat

Steely ambition

Clad in rusted metal, Gavin and Angelique Robb's former oat mill is a strikingly modern, eco-conscious family home





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Homes Converted mill

AT A GLANCE

Names Angellique
and Gavin Robb
Location Aberdeenshire
Property Restored and
extended out mill
Bedrooms 3
Bathrooms 2
Project started July 2008
Project finished July 2011
Size of house 205sqm
Build cost £400,000
Cost per sqm £1,951



Fitting the Corten steel cladding was a massive undertaking, carried out by Gavin and a local blacksmith, at times in temperatures of -20°C



The building wraps around a sunken courtyard area

Skye Steading, an impressive contemporary eco home in rural Aberdeenshire, intriguingly fuses together two of Scotland's traditional staples of industry – farming and shipbuilding.

'We liked the look of some old cowsheds next to a pile of potato boxes,' says Glasgow-based architect Andrew McAvoy as he recalls what sparked the design idea for the semi-derelict oat mill. Renovating the granite building and combining it with a new double-height living space within a Corten steel-clad agri-industrial wedge would fulfill the owners' brief for 'a joyful dwelling'.

Gavin and Angelique Robb admit that they fell in love with architect McAvoy's ideas following their initial site meeting. McAvoy convinced the couple, after studying mid-nineteenth-century plans of the original steading buildings, to follow the original U-shaped arrangement around a courtyard. The big idea was to construct two energy-efficient houses that would share the entrance courtyard, but have private aspects and gardens. The Robb's new family home is phase one of the development. The second phase – building a mirror image of Skye Steading – is due to be completed this year.

Yet this bold design and build, which involved an almost Herculean, three-year effort by owners Gavin and Angelique, nearly didn't get off the ground. 'The site had many issues,' explains McAvoy. 'The topography, large amounts of tricky demolition, requirements for on-site recycling, 150 years of adaptations; plus, the drainage and infrastructure needed to be dealt with up front to make the site accessible and workable. My gut feeling on the first site visit was to steer a young family away from this type of undertaking. But, when I brought up all these issues, Gavin and Angelique seemed unfazed, and despite the major works involved they said: "We can deal with that – in our industries we're dealing with logistics all the time, this is nothing".'

Angelique, a landscape designer and former drilling engineer and Gavin, a construction consultant in the oil industry, were not really looking to build a home at the time they spotted the old farm buildings. 'We were living in a flat in the centre of Aberdeen and had never talked about moving

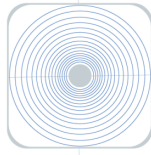


Flooring in the mezzanine living area is Canadian maple, reclaimed from local schools

or buying anywhere,' explains Angelique, who is originally from Lafayette, Louisiana. 'However, one day I was reading a local newspaper and spotted an advert for land with planning permission for a house with four/five bedrooms. I said: "We have to look at this". It was snowing at the time. There was asbestos in the roofs of both buildings; not a great start. We then asked Gavin's brother, who is a quantity surveyor, to have a look and when he and his wife visited they got very excited. I believe in fate and everything seemed to fall into place.'

The ambitious design wasn't without its challenges. 'We were in the planning stage for two years,' says Gavin. 'One snag was that we wanted the addition to be two storeys, but we weren't allowed to go above the height of the original steading, so we had to sink the triangle of the new-build element. Andy McAvoy presented a scale model of both houses to the council meeting at which the planners approved the design.'

The build was not for the faint-hearted. 'For three years, →



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Open tread stairs rise from the kitchen-living space to the mezzanine above

Homes Converted mill

Spotlight on... Eco features

>> **'The most important requirement for the house was year-round, efficient, renewable heating and the ground source heat pump provides that,'** explains Gavin Robb. 'Ground source is just that – a summer's worth of solar energy stored in the ground for when we really need it. It powers the underfloor heating and we have a wood burner as backup. It cost about £14,000 for supply and installation of the pump, but the initial outlay was well worth it as the house is so economical – our bills are half that of our previous small house in Aberdeen.'

>> **'Sheep's wool insulation is a low-cost material** with no chemical by-products; it's clean and a joy to work with,' claims McAvoy. The insulating properties are excellent and, as a material free of plastics, it's breathable, which is ideal for the wetter climate of Scotland. It's also totally unique in its ability to absorb and permanently lock up formaldehyde and other hazardous VOCs, according to a study by Bangor University.

>> **The polyurea roof membrane was new to the market at the time,** and an alternative to the welded membrane usually used for green roofs. The material is sprayed on to provide a strong, impact-proof and waterproof covering that should not deteriorate over time or require any maintenance.



The granite wall acts as a heat store

Homes Converted mill

from going on-site to completion, we lived in a caravan that we bought on eBay,' says Angelique. 'The builder was just one man. We were going for quality rather than getting it up fast. It also helped us to afford it, as we were earning money while we were building. We actually had a great time in the caravan. But being in the house now, I don't know how we did it!'

The result is a cleverly constructed combination of retained and rebuilt granite farm building – roof slates and stonework were numbered during demolition and reinstated – and a contemporary extension, connected internally by a reinforced glass floor.

The renovated steading now contains three bedrooms (including a master with en-suite bathroom), a family bathroom, and an office, which is large enough to be used as an additional bedroom if needed. 'I think what's really nice is that all the bedrooms are in the steading, which doesn't have as many windows, so the rooms are darker and smaller. That was intentional and it's worked out perfectly,' says Angelique.

The one-and-a-half storey open-plan extension features a kitchen, dining and living area with an additional living space above. Clad in Corten steel – the result of a close collaboration with Ferguson Marine on the River Clyde, one of the last remaining non-military shipyards capable of this bespoke engineering – the wedge-shaped section projects forward to face the main view, via huge windows, while the thin end of the addition slopes towards the ground, sheltering from the harsh north-easterly winds.

Honest, good-quality materials were central to both the internal and external design. Traditional green oak purlins, rafters and floor joists have been combined with a marine-grade structural steel frame, manufactured at the Ferguson shipyard, to form the skeleton of the new building. 'We started off with all oak framing in mind, but making it entirely from green oak would have cost us an additional £40,000. Now I couldn't imagine having just a timber frame; it wouldn't be contemporary enough for us,' admits Gavin. 'We love the industrial aesthetic created by the wood and steel.'

Sheep's wool insulation and a sedum roof help to maintain a cosy indoor climate. Additionally, the thick polished-concrete floors store warmth from the underfloor heating, which is powered by a ground source heat pump. A granite wall facing the courtyard has been made into a Trombe wall. This is a passive solar design in which a glazed corridor alongside the wall draws in winter sun, whose heat is then stored in the stone and radiated into the building. Unsurprisingly, the couple's energy bills are considerably less than their previous flat, which was half the size of their current home.

'The house is always the perfect temperature. The only way you get cold in this house is if you're ill – it'll be your own internal thermostat,' says Angelique.

'Overall, our aim was to have a low-maintenance house,' concludes Gavin. 'But in terms of the interior finishes and the systems we have installed, such as the impact-proof, polyurea roof membrane, passive heating and particularly the Corten steel cladding, which we will never have to replace, we've actually ended up with a zero-maintenance house!' GD

Words Caroline Eadie Photography Nigel Highton



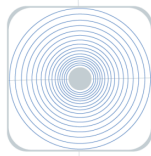
Grand idea

Corten steel cladding

'We love the look,' says Gavin Robb. 'It really enhances how solid the build is. The finish is actually quite muted and some people mistake it for timber when they see it from a distance. The steel will last for hundreds of years and look better with age.' The Corten steel was manufactured by Ferguson Marine (01475 742 300; fergusongroup.co.uk)



The rusted steel wedge complements the natural stone of the original building



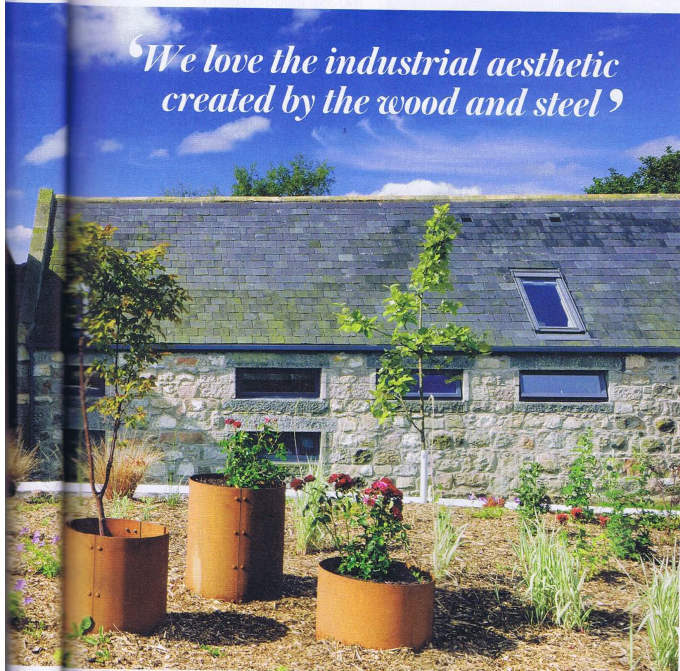
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A glass bridge links the extension to the original steading

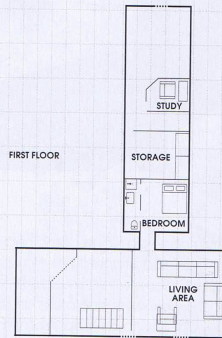
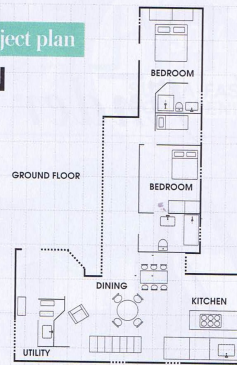


Well-placed windows bring light into the bedrooms



‘We love the industrial aesthetic created by the wood and steel’

Project plan



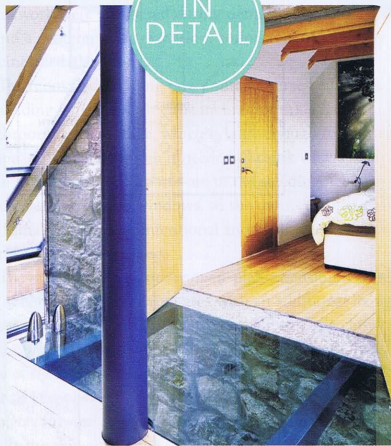
Suppliers

PROJECT TEAM Architect Retool Architecture (0141 423 2955; retoolarchitecture.com) Landscaping Angeliqe Robb, Papillon Designs and Landscaping (papillonlandscape.co.uk) Joiner Campbell & Macintosh (01975 651 458) **STRUCTURE** Steel frame and Corten steel cladding Ferguson Marine (01475 742 300; fergusongroup.co.uk) **Roof membrane** Armour Chem Polyurea Elastomer from Site Sealants (sifesealants.co.uk) **Staircase** James Aitken (jasm.com) **Balcony** Grace and Webb (graceandwebb.com) **ECO FEATURES** **Ground source heat pump** Paragon Systems (paragon-systems.co.uk) **Sheep's wool insulation** Black Mountain Insulation (blackmountaininsulation.com) **FIXTURES & FITTINGS** Kitchen Ikea (020 3645 0000; ikea.co.uk) **Wood-burning stove** Westfire (westfire.dk) at Stoves Online (stovesonline.co.uk) **Aluminium-clad wooden windows** Nordan (nordan.co.uk) **Built-in lighting** Tristar Lighting (trilight.co.uk) **FURNITURE & ACCESSORIES** Sofa Togo by Ligne Roset (ligne-roset.com)

STYLE *finder*

Choose raw materials to recreate the Robbs' natural look

IN
DETAIL

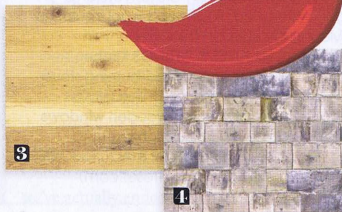


Glazed link

Gavin and Angelique combined structural glazing and traditional timber to create bright, spacious rooms with a timeless feel. A glazed link to the new extension offers an architectural edge. Cantifix could supply something similar. (020 8203 6203; cantifix.co.uk)



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3

4

Swatch watch

- 1 **Smooth touch** Polished concrete flooring, from £100 per sqm, Puur (020 7084 6266; puurfloors.com)
- 2 **Bold hue** Atomic red absolute matt emulsion, £38 for 2.5L, Little Greene (0845 880 5855; littlegreene.com)
- 3 **Simple surface** Variation oak floorboards, £78 per sqm, Junckers (01376 534 700; junckers.co.uk)
- 4 **Imitation game** Sandstone brick wallpaper, £30 per sqm, Mr Perswall (020 8442 7188; mrperswall.co.uk)

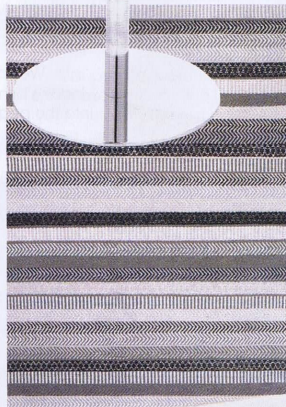


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Get the look

- 1 **Colourful accent** Basil stool in red, £368.50, Calligaris (020 3129 4724; calligaris.com)
- 2 **Industrial lighting** Old vintage pendant light in grey pewter, £59, Industville (07971 7871; industville.co.uk)
- 3 **Rusted effect** Atlas cyclander planter in Corten steel, £346, The Pot Company (0890 353; thepotco.com)
- 4 **Soft touch** Mariko rug in grey, from £205, Linie Designs at Heal's (020 7896 7451; heals.co.uk)
- 5 **Sustainable timber** Coffee table in oak and iron, £349, Notonthehighstreet (0345 255 1111; notonthehighstreet.com)



1



5

EDITOR'S VIEW

'This ambitious but successfully blends industrial steel with traditional stone'