



The Perfect Blend

Robert and Lynne Staveley have replaced a dilapidated farmstead with a grand, beautifully designed country house that looks nothing like the eco home it really is

SELF-BUILD | NORTH YORKSHIRE | JAN 2010 - JULY 2011 | SIZE: 928m²
LAND COST: ALREADY OWNED | BUILD COST: £1.8m (£1,939/m²) | VALUE: £3.5m



The Daily Telegraph
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Front, rear and side elevations

With parapets, stone surrounds, elegantly proportioned six-over-six sash windows and clad in 465m² of cobbles and corner stones sourced from the surrounding grounds, this is an instant design classic. But the square-shaped Georgian house also has energy-saving benefits — Robert calculated that a square house has around 70% of the external wall space of a T-shaped property, making it more energy efficient



“We have put everything into this house, and the hope is that it will still be standing in 500 years’ time”



Kitchen

In addition to the ground-source heat pump-powered underfloor heating, a heat recovery system distributes air from warm parts of the house to the living spaces—particularly effective in the kitchen, which has an Aga



Reception Rooms

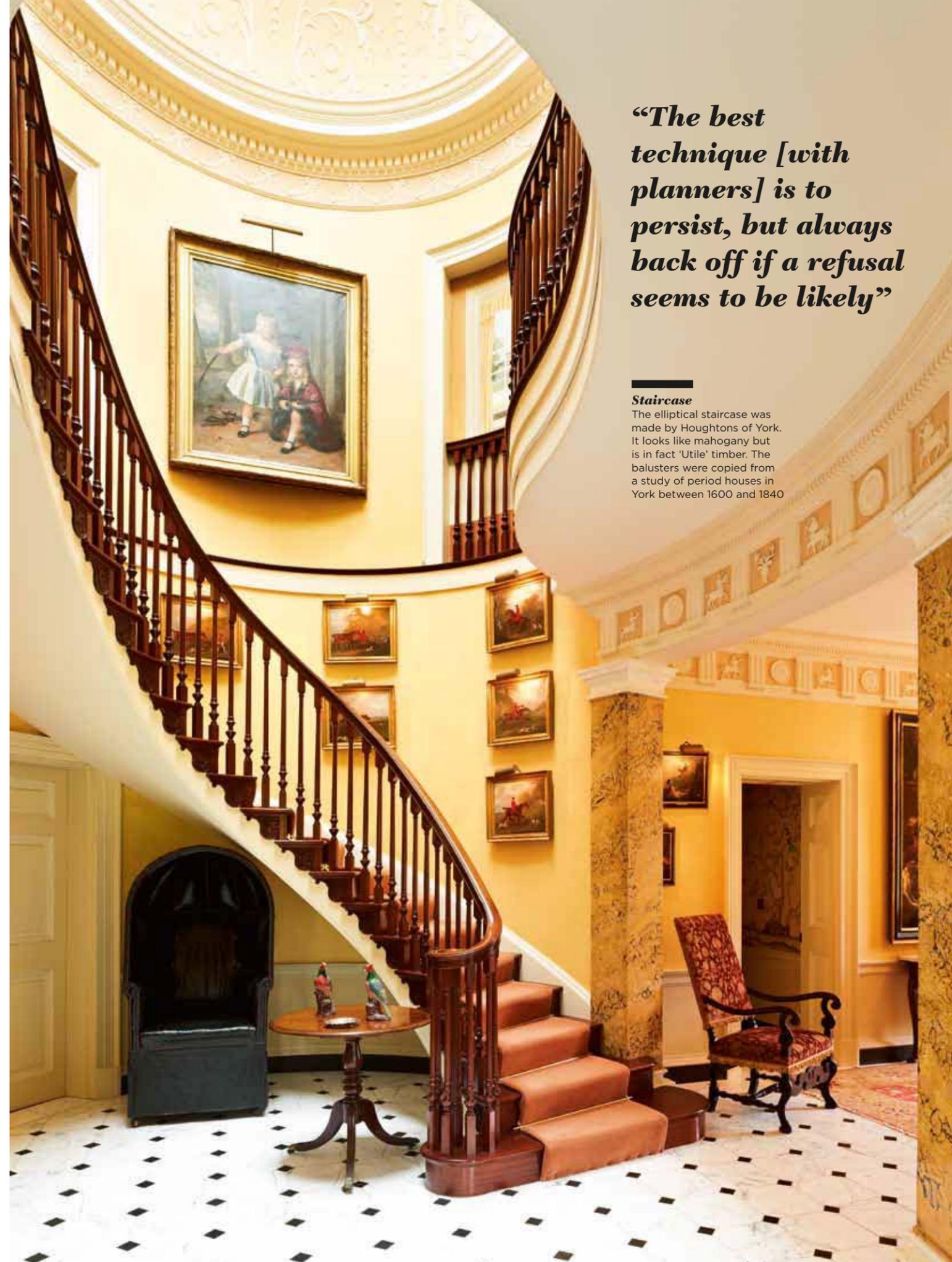
Each of the principal rooms has a period fireplace and brass dog grates that have been collected over many years. The door pediments are copied from Robert and Lynne’s original Queen Anne home





Mouldings

Robert and Lynne paid great attention to the internal architectural detailing, incorporating marble and Scagliola columns. The cornices, by Stevensons of Norwich, are based on Robert Adam's work



“The best technique [with planners] is to persist, but always back off if a refusal seems to be likely”

Staircase

The elliptical staircase was made by Houghtons of York. It looks like mahogany but is in fact 'Utile' timber. The balusters were copied from a study of period houses in York between 1600 and 1840

“My experience with ‘eco’ houses is that they are generally ugly boxes, made up largely of sheets of glass”



Planning Saga

It took five years for the house to gain planning approval. The planning officer recommended each application for refusal, and suggested the house – which replaced a run-down farmstead which had been incongruously added to over the years – would spoil the Area of Outstanding Natural Beauty in which it sat. Each time Robert withdrew the application in order to avoid a damaging refusal. Having finally got the application to committee stage, Robert then insisted on members of the committee visiting the site in person, driving them round the site in a tractor and trailer to see how it would shape up. The planning officer, who did not take the ride, again recommended refusal but the committee voted 13-0 in favour of the house



The Cellar
With the house requiring extra-deep footings as it was built on pure clay, Robert and Lynne specified a cellar which sits four metres deep below the whole house

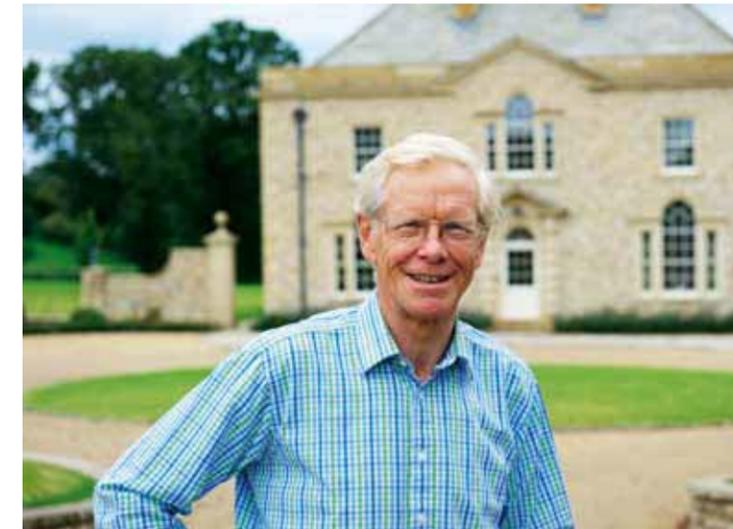


Hemcrete
The 500mm thick external walls are insulated with Hemcrete and finished in breathable lime plaster



Robert & Lynne's Suppliers

- Planning** Malcolm Tempest.....01677 450777
- Architectural drawings** Francis Johnson & Partners.....01262 674043
- Sanitaryware** Drummonds of London.....0207 376 4499
- Plumbing and underfloor heating** Johnsons Heating.....01423 324269
- NIBE ground-source heat pump supplier** Nu-Heat Ltd.....01404 549770
- NIBE ground-source heat pump system** NIBE.....0845 095 1200
- Ventilation and heat recovery system** Johnson & Starley.....01604 762881
- Electrics** Mike Seldon.....01423 322972
- Staircase** Houghtons of York...01904 489193
- Doors, windows, dado, shutters and skirting** Biker Bespoke Joinery.....01969 623020
- Hemcrete and lime mortars** Lime Technology.....0845 603 1143
- Kitchen fittings, specialist panelling and doors** Distinctive Country Furniture...01935 825800
- Dome, cornices, door pediments, friezes and murals** Stevensons of Norwich.....01603 400824
- Scagliola (hall columns)** The Scagliola Company.....0113 262 6811
- Decoration** Hesp & Jones.....01904 470256
- Dressed cut stone** A D Calvert.....01969 622296
- Basement, brick and blockwork, carpentry and formwork** David Rumbold.....01765 600997



Robert Staveley is the Squire of the North Yorks village of North Stainley. His family has held the 1,400 acre estate since 1516. The signs at the entrance and exit of the village have the family crest of a stag's head on them. Even the village pub is called The Staveley Arms.

With such a traditional background it is hardly surprising that, having decided to hand over the large Georgian family home, North Stainley Hall, to his son James, Robert should have wanted to move to a similarly grand house as a retirement home for himself and his wife Lynne.

Robert has a good pedigree in self-build. As well as undertaking a comprehensive restoration of North Stainley Hall in the 1980s, he masterminded the building of 45 new traditional-style houses in the village over a period of 33 years.

So it was with confidence that he set himself a number of conditions as he and Lynne planned the seven-bedroomed new Georgian-style house on the site of a dilapidated farmstead on the estate. One of the main criteria was that the four acre grounds should contain at least two small lakes that he planned to create himself with the assistance of the estate labour force.

Another condition was that although the house should be built from ecologically sound materials, nothing should be allowed to spoil the external appearance. "My experience with 'eco' houses is that they are generally ugly boxes, made up largely of sheets of glass," says Robert, 68. "I wanted to show that this does not always have to be the case." It was of major importance that the house should look totally authentic and be true to its style.

Robert was not expecting that it would take two years to get planning permission for the lakes and another three for the house. However, he was not entirely surprised. "I was something of a marked man in the eyes of the planners," he says. "Although I had developed nearly all the new housing in the village and won several awards, I had also founded and developed the Lightwater Valley theme park on land on our estate. I

WORDS: CLIVE FEWINS
PHOTOGRAPHY: JEREMY PHILLIPS

think the planners thought I wished to create another theme park!

"However I'd had many previous dealings with local planners and had every confidence I should succeed. The best technique is to persist, but always back off if a refusal seems to be likely. It is important to avoid getting a refusal if at all possible, as they are very hard to override."

The Staveleys were keen that their new house should be economical from an energy point of view. "I always loved our old family house but I often referred to her as my mistress: very beautiful, but very expensive to keep, with a serious drinking problem — oil," Robert says.

Robert's search for modern materials that would satisfy all his criteria took so long that in the end he was grateful for the lengthy planning process, which gave him time to think.

His research led to an unusual choice for the walls and roof. He chose hemcrete, a mixture of lime and the inner core of the commercial hemp plant, that would provide a wall deep enough to house full-size shutters, and so give an authentic feel to a Georgian-style house.

Apart from its obvious ecological credentials hemcrete, which has to be shuttered during the build but can happily encase a wooden frame, produces a breathing wall. Robert was also confident that it could be constructed by the estate labour force. He was proved correct.

Robert and Lynne chose a near-square shape for the house for reasons of energy efficiency. "The Georgians so often got it completely right in this respect," he says.

The Staveleys also chose to have a full basement, which houses work rooms, storage space and utility rooms, and to clad the exterior of the house with dressed cobbles picked from fields on the estate.

"In the end the build cost £1.8million," Robert says. "But this was to an extremely high specification, with an interior including a glass dome, complicated window blinds, hall murals, very extensive period plastering, and an absolutely sumptuous curved oval staircase. Done in a more basic way I reckon I could have succeeded on a budget of £350-£400,000."

"You can do anything you want if you put your mind to it"

The overall result is a perfectly proportioned Georgian-style mini-mansion, that combines total visual success and an authentic feel with modern materials and energy efficiency. It is a perfect blend, that has won awards from the Georgian Group and the York Guild of Building Craftsmanship — and now 'Best Traditional Style Home' in The Daily Telegraph Homebuilding & Renovating Awards 2012.

"You can do anything if you put your mind to it, and that includes building beautiful, large, traditional country houses that can be heated economically," says Robert. "We have put everything into this house, and the hope is that it will still be standing in 500 years' time." ■

LARGE HOME, SMALL BILLS

Robert Staveley looked at all ecologically based methods of heating his 928m² house before deciding to go for a ground-source heat pump.

"After a lot of research I eventually rejected solar, wind and photovoltaics," he says. "Ultimately all were relatively expensive, and as far as I could see not sufficiently cost-effective. Certainly they did not fulfil one of my key criteria that our source of energy should be a 'certainty'."

Heat from the ground – after all, they have lots of it – did however fulfil this criterion.

In Robert's case he wanted something that would guarantee a small amount of heat to the underfloor heating system 24 hours a day, every day of the year.

"I had been convinced of the efficiency of underfloor heating since my restoration of the old hall in the 1980s," he says. "I wanted to combine this with absolutely first-class insulation."

He was glad he made this choice when it proved effective in keeping the unfinished building warm during the severe winter of 2010, shortly before they moved into the house. Temperatures reached -7°C by day and -15°C at night and snow lay on the ground for nearly five weeks.

"By spacing our pipes really far apart – about 15 metres – and using 1,000m of underground piping we are able to extract the

circulating fluid from the ground at about 4°C and to return it to the field at -3°C, thus giving us a gain of 7°," Robert says.

The heat 'removed' is stored in the form of water in two large, well-insulated storage tanks, one for underfloor heating and the other for domestic hot water. The underfloor heating is on the lower ground, ground and first floor levels and the temperature here stays at a constant 17 or 18°C. All heat recovery systems are dependent on some electricity to drive the heat pumps, and the electricity for this, and all other domestic needs, including the stale air extraction and heat recovery system, costs an average of £1,800 a year.

This compares with £7,000 just for heating and domestic hot water in the couple's old house. The window seat radiators installed as a back-up have not been needed.

When it came to choosing insulation Robert and Lynne were determined to do nothing that would destroy the feel or the proportions of the house. Hemcrete walls 375mm thick, with the internal render and cladding making a total of 500mm, proved the answer. "Hemcrete provided a standard of insulation that conforms with the Building Regulations, while the lime content repels rodents. It was just what we wanted," says Robert.

What We've Learned

What has surprised you most about undertaking a project like this?

We were astonished at how efficient good insulation is. Combined with the ground-source heat pump it has given us all the heating and hot water we need.



Did you find anything surprisingly easy?

The hemcrete work was surprisingly easy. We watched it done on other sites and then laid it using the farm labour force.

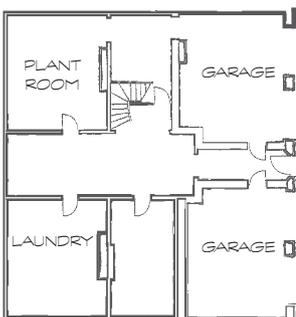
If you could undertake the project again is there anything you'd change?

Nothing, except we wouldn't have installed the additional radiators in the rooms with bay windows as a booster system to the underfloor heating, as they have not been needed.

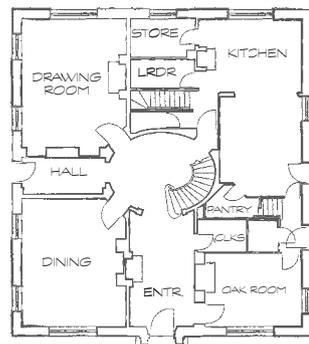
Floorplans

While the basement is largely dedicated to work and utility spaces – and a wine cellar – the ground floor features the main drawing rooms and areas to entertain guest. Upstairs there's two bedrooms at present, but the house was designed to allow seven bedrooms to be created in the existing space, if required by future generations.

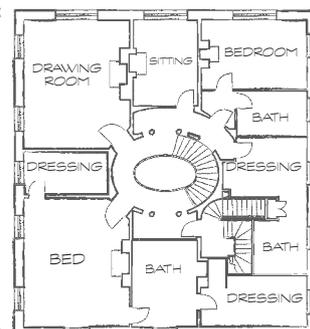
BASEMENT



GROUND FLOOR



FIRST FLOOR



SECOND FLOOR

