

# DESIGN

from IBSTOCK BRICK

## Autumn 2016

In this issue: Cottrell Vermeulen at Brentwood School, Evans Vettori at Nottingham Trent, PRP, Studio Verve, Adrian James Architects, plus creating curved brickwork and Ibstock's Birtley brickworks

# Sweeping Impressions

Stylish curved walls of brick envelop the free-flowing and flexible interior spaces in Adrian James Architects' re-invention of the archetype 'villa in the landscape'.



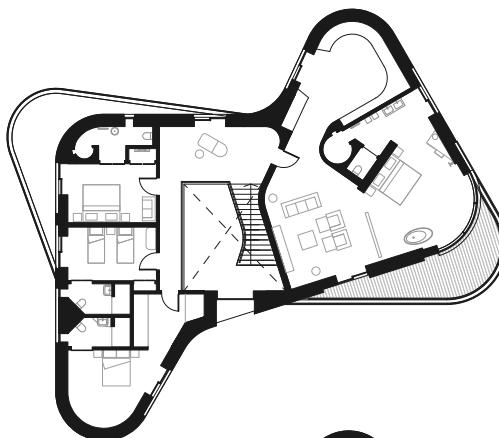


‘Incurvo is a meta-villa’, says architect Adrian James. ‘Like a classical villa it sits at the centre of a beautiful sculpted landscape. But unlike a classical villa it does not sit four-square on axis, gazing haughtily down on a formal landscape in stasis.’

‘Incurvo is all about movement. It is fluid; a dynamic sensuous form which beckons the visitor around its sweeping curves. This is a building that grows out of the organic curves and folds of its setting. The house is a viscous form petrified; it is an English butte. The strong sense of movement embodied in the shape is frozen in time within its brick carapace. The local brick has a luminous earthy orange hue, seemingly still bright from the heat of the kiln; this house exploits both the extraordinary plasticity of the humble brick, and its rough, tough sense of rootedness.’

‘Inside, too, is all about curves and movement; a lofty entrance hall draws visitor inwards and then left, right and up as the space opens and diverges in all directions. The destinations, the places to pause and rest, are the foci of the majestic curved windows which offer breathtaking panoramic views of the garden, water, trees and rolling Chilterns landscape beyond.’

‘Incurvo is not just a pretty face, however. It is as close to being a Passivhaus as a curvy house can be. The radial windows preclude full compliance, but the house meets the most stringent benchmarks for insulation, thermal bridging, airtightness and thermal comfort. Passivhaus principles have been adhered to throughout, with a Certified Passivhaus tradesperson overseeing the entire construction. The end result is a dwelling that will have



#### Left

Ground and upper floor plan; site plan.

#### Right

Entrance elevation; living area; master bedroom suite.

#### Adrian James writes:

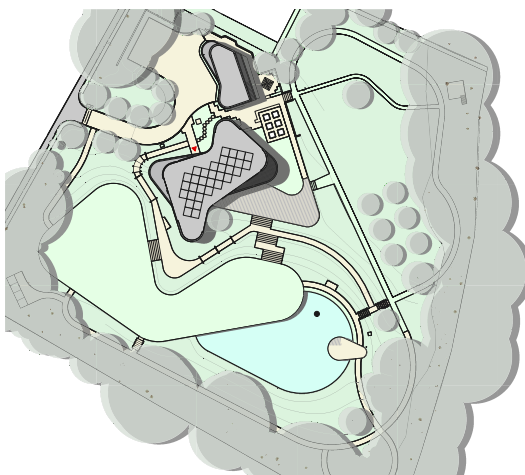
In 1973, the celebrated architect Louis Kahn wrote: ‘You say to brick, “What do you want, brick?” And brick says to you, “I like an arch.”’

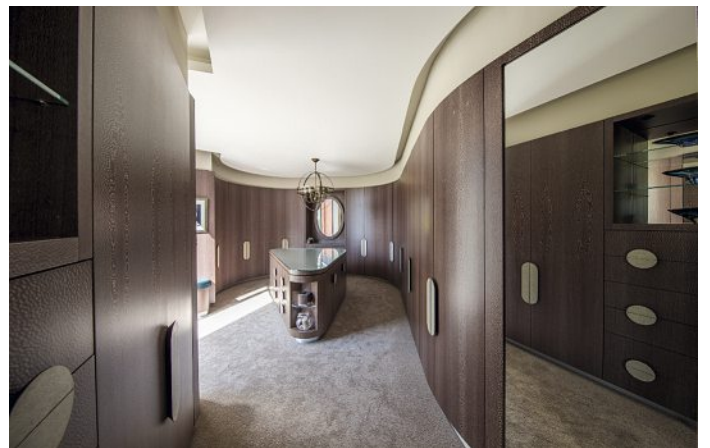
A present-day conversation might go: You say to brick, “What do you want now, brick?” And brick says: “Look, I still love an arch, of course! But I appreciate that technology has moved on. Nowadays the loadbearing job is necessarily within an insulating envelope; whatever bears the weight has to be separated from the external finish to prevent cold bridging. There was a time – a few millennia in fact – when I could be structure and finish simultaneously. But those days are over. Now there are other materials that can do the loadbearing and I am more likely to do the external cladding alone.”

“That is not a problem though! And certainly not a demotion. I have qualities beyond compressive strength, and, if I’m not carrying all that internal load, that frees me up to exploit them. For a start, I have extraordinary plasticity. My small handy shape means that angles, cranks, curves are a doddle – no special fabrication, just me doing what I do best.”

“Being the face of the building, freed from structural duties, gives me scope to be supple and sinuous. I can be like the skin of an athlete, a taut layer hugging and expressing the musculature beneath.”

“What do I want now? I want to wrap myself smooth and taut around dynamic curvaceous forms. I want to be the cheetah’s fur, the sculpture’s carapace.”



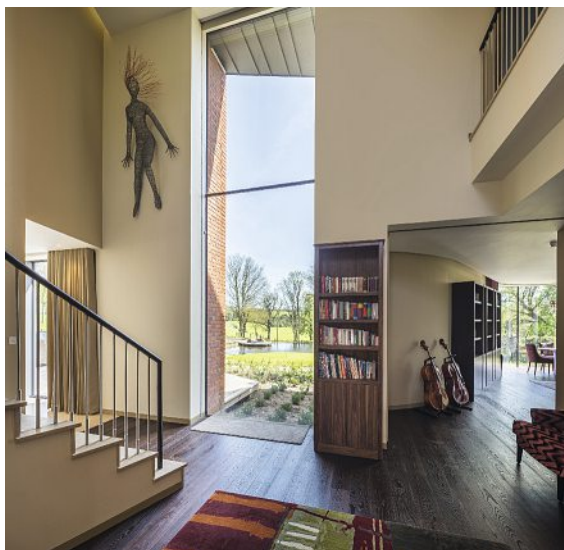


exceptionally low running costs and carbon dioxide emissions for its lifetime. The house has three energy generation systems: a large array of photovoltaic panels on the roof, an array of solar thermal panels to heat domestic water, and a full mechanical ventilation system with heat recovery.'

'Incurvo will be extremely comfortable to occupy. It has been designed as a Lifetime Home, with space for a lift, generous dimensions and internal flexibility. And it has been built using extremely durable materials requiring minimal maintenance. This house is designed to last for many lifetimes with the lightest of touches on the planet.'

'The structure is an enhanced ICF (Insulated Concrete Formwork) system, with a U-value of 0.14. This construction method combines continuous insulation with structural flexibility and airtightness in one robust element. In-situ concrete floors and roof (with even better U-values of 0.1) create a contiguous thermal and airtight envelope and cope with the non-orthogonal form and large cantilevers over the wide curved openings. This is a house which stretches the capabilities of the building systems to the limit. The long stretches of curved walls required a whole new approach and real craftsmanship from the ICF supplier to make the tied radial insulating formwork.'

'There has been unstinting attention to detail throughout the design and construction of Incurvo', says Adrian James. 'But at no time has the pursuit of excellence in sustainability or construction been allowed to compromise the poetic idea of the house. Everything, everyone has worked together to make it real.'



#### Left

The architect selected a Swanage Handmade Light Red Multi brick – a rich orange colour brick with some variety. 'It's a favourite brick of ours and one we have specified before – and we used it here to suit the locality', says Adrian James.

'We used a Flemish bond because it makes a complex and lovely rhythm and also because it goes round the tight curves without the need for specials: we tested this first with a sample panel, and the bond combined with the rough lines of the handmade bricks worked well even down to a two-metre radius. The natural mortar was recessed to create shadows and leave the brick arrises clear.'

'The deep reveals were critical to the look of the building; the walls are very thick because of the exceptional levels of insulation and this means the brick carapace from which the body of the house emerges has the necessary solidity to read as a structure of its own, a vessel rather than just a skin.'

#### Right

Construction section through door head and floorslab.

**BUILDING**  
Incurvo, Oxfordshire

**BRICKS**  
Ibstock Swanage Handmade Red Multi

**MORTAR**  
CPI Mortars M4 Natural

**ARCHITECT**  
Adrian James Architects

**CONTRACTOR**  
DLP Associates

**PHOTOGRAPHER**  
Fisher Studios

