

April 21, 2019

Home

DESIGNS FOR LIFE

Twelve pages of inspiration, insight and nuts-and-bolts advice for anyone looking to build their own dream house



**GIVEN THE CHOICE
I WOULDN'T COOK ON
ANY OTHER BARBECUE**

JAMES MARTIN

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Grand Designs Build

For 20 years, the nation has gossiped and gawked as Kevin McCloud's Grand Designs regaled us with fraught tales of water towers, woodsman's cottages and ruined castles. Building your own house, we have seen again and again, is not for the faint of heart – you may even need five heart bypasses, as one subject of the Channel 4 show found.

It need not be so any more, however. The evolution of custom-build sites makes it possible to be a sofa self-builder, doing Grand Designs the easy way. The developer takes care of the hard part – finding land, getting planning permission and installing services and access – and they'll build and manage as much of the home as you like. But you get to make it your own, specifying everything from the floorplan to the finishes.

"We give people choice when they buy a new car; why on earth not when they make the most expensive purchase of their lives?" asks Kim Slowe, the chief executive of Design Your Home, which is developing four custom-build sites, with another 10 in the pipeline. At his schemes in Basingstoke and Swindon, you can choose from up to six layouts for every floor, plus 10 options each on bathrooms, kitchens, doors, handles and skirtings (designyourhome.com).

Only 7% of new homes in England are self- or custom-build, compared with 57% in Germany and 70% in Austria. The government backed Britain's first custom-build pilot site, for 54 homes by Igloo at Hearlands, near Redruth in Cornwall, only three years ago (£105,000-£295,000 for a plot and home; homemadehearlands.co.uk). Now this fledgling sector accounts for 1,500-2,000 of the estimated 14,500 self-build homes under construction, says Gus Zogolovitch, its representative on the board of the National Custom & Self-Build Association (NACSBA). Though ministers want 20,000 self-build homes a year by 2020, economic uncertainty limits AMA Research's forecast to 12,000 a year by 2022.

The demand is there. Since 2016, more than 40,000 people have signed up to Right to Build registers across England, which logs those seeking a plot to create their dream home in each council area. From this month, councils must start granting equivalent planning permissions. Some councils are going to great lengths to meet demand, such as Teignbridge district council, in Devon, which requires new developments to set aside 5% of plots for custom- or self-build. But one in four councils has made it harder for people to join their registers, charging fees as high as £350 and requiring you to prove a local connection, NACSBA says.

Many of the schemes were 500 neighbourhood plans made since 2011 by communities across England provide for custom- and self-build – freeing up more sites. Five years ago, Merry and Ben Albright, with their children Minerva, now 14, and Gabriel, 10, started looking for a plot to build in Eardisland, Herefordshire, where Merry had lived all her life. "There was nothing available," says Merry, 42. Landowners told them they would "never secure approval... The land we set our eyes on was just outside the village's black line, where nothing was constructed for 20 years." But Eardisland's new neighbourhood plan now allows custom- and self-build, such as their 5,000 sq ft oak-framed house.

Border Oak, the bespoke oak-framed home manufacturer founded 40 years ago by Merry's father – and where



Master plan
Ben and Merry Albright built a 5,000 sq ft oak-framed house in Herefordshire, above



GRAND DESIGNS THE EASY WAY

Creating your own dream house is a daunting prospect, but the rise of custom-build sites is making it simpler.

By Martina Lees



At the top end of factory-built kit homes, a Huf Haus, right, costs from £3,000 per sq metre



Right, a Facit Homes design in South Woodford, east London



she is creative director – has since branched out to offer more than 50 custom-build plots for sale across villages in Herefordshire and West Sussex (from £145,000 per plot; borderoak.com). They gained consent for all those sites via neighbourhood plans, Merry says.

Gus Zogolovitch brought custom-build to the capital through Unboxed Homes after it took him five years to build his own home, in Queen's Park, north London. "It was a fantastic experience, but difficult." His third custom-build scheme, five shell terraces in Peckham, southeast London, took about five years to get off the ground, yet will take buyers six months to fit out (unboxedhomes.com). "Custom-build is not necessarily cheaper than a developer (designed and built) house, but if you've chosen all the things you love, you get better value," he says.

Look for custom-build plots on Zoopla, Rightmove and custombuildhomes.co.uk. Or try exhibitions such as Grand Designs Live and the Homebuilding & Renovating Show. You pay no stamp duty on the finished home – only on the land cost if it is above £150,000. Custom-build is also exempt from VAT and community infrastructure levy, which is otherwise charged with planning consent for a new house. "The savings are big factors that make custom-build very attractive," says Michael Holmes, chairman of NACSBA. Mortgages are more expensive than for conventional homes – try the specialist BuildStore – but you can remortgage in the mainstream market once it's built.

Britain's biggest site for building your own home is Graven Hill, near Bicester, the Oxfordshire town famous for its designer shopping village. Among the first of its 1,900 homes are those in the current six-part series Grand Designs: The Street.

Like these 10 owners, who paid about £100,000 each for a serviced plot, you can build creatively within the broad planning limits of a "plot passport"; or you can fit out a ready-made shell from £300,000.

Service plots allow you to choose just about any pre-manufactured kit home, from a timber-frame design by Potton (£1,400-£1,600 per sq metre; potton.co.uk) to a high-end Huf Haus (from £3,000 per sq metre; huf-haus.com). You could even bring in a "flying factory": a shipping container with a precision 3D cutting machine that crafts your home on site according to a detailed digital design. At Graven Hill, this is how Beattie Passive has built a range of Passivhaus with ultra-low energy bills (beattiepassive.com; see more about Passivhaus on page 6).

On a quiet corner of the same site, that is also how Facit Homes is creating a charred timber house with a sawtooth roof and woodland views for Londoners Marc and Laura Marsdale and their two young daughters. "Despite our long-held desire to build our own home, the effort of finding a suitable plot and battling through planning was just not something we wanted to take on. So the 'plug and play' concept of custom-build seemed like the perfect answer. I don't think we would have done it otherwise," says Marc, who works in finance. A Facit home costs about £2,100 per sq metre, plus 10-17% architects' fees (facit-homes.com).

Marc adds: "To live in something we've had a hand in designing, rather than being made for someone else, is the ultimate way of creating order for your life."

Kevin McCloud will be at Grand Designs Live at ExCeL, London E16, from May 4 to 12. To claim two any-day tickets for £18, quote TIMES19 at granddesignslive.com



WILTSHIRE
The first 12 of 70 custom-build plots at Marlborough Park, near Swindon's vibrant old town, offer a wide choice of layouts and finishes. Prices start at £250,000 for a two-bedroom house. 07809 306367, designyourhome.com



ESSEX
Designed to Passivhaus principles around greens with fruit trees, the 51 rural custom-build homes at Oakley Orchards are 10 miles from Manningtree. Layouts vary from two to five bedrooms. 01803 814076, oakleyorchards.com



LONDON SE15
At London's only live custom-build site, in Peckham Rye, five architect-designed terraced homes have double-height spaces and split-level floor plans. A three-four bedroom shell is £899,995. 020 7234 0862, unboxedhomes.com



OXFORDSHIRE
Three-bedroom Passivhaus terraces are among the custom-build options for sale at Graven Hill, Britain's largest such scheme. South of Bicester, it is 50min by rail from London and 15min from Oxford. 01869 228041, gravenhill.co.uk

Grand Designs Green Living

It took 16 months, £800,000 and two winters in a yurt, but this eco-home was worth it, its owners tell *Martina Lees*

BUILDING THE FUTURE

Emily Spry, a doctor turned Extinction Rebellion campaigner, was one of more than 500 activists arrested during climate-change protests in central London last week – spending the night in a police station after blocking Parliament Square. She is also one of a select band of eco-builders (fewer than 1,500) who own a Passivhaus: a home that meets the highest global standard for energy efficiency. After 10 years hunting for the perfect plot, two winters living in a yurt on a building site – bathing their two youngsters in an outdoor hot tub – she and her husband, Alex Paul, have a plaque to prove their Hertfordshire home's credentials.

"We wanted to do an eco-house, because we're worried about the climate crisis," says Emily, 41. She and Alex "wanted to make sure our family's negative impact on the environment was as little as possible".

At the last annual scarecrow festival in their village of Flamstead, near St Albans, the family's minimalist timber home drew as much attention as neighbours' replicas of Mary Berry and Boris Johnson, Emily says. "We put on a board saying, 'Yes, it's a Passivhaus,' and explained what it was."

With the most exacting standard for sustainable homes, Passivhauses are all about saving energy, not generating it. They need about 90% less fuel to heat than an average existing home – and 50% less than many so-called eco-homes. They must also be 15 times more airtight than a standard build. Originating in Germany, the first Passivhaus was certified in Britain 10 years ago; more than 1,100 followed.

"It's simple technology," Emily says. "It's insulated really well; the windows are triple glazed." Most of the glass is on the south side, so the sun can warm the house. Warmcel recycled-paper insulation fills the 20in-thick walls, and a foam slab beneath the poured concrete floor ensures it feels ambient without any underfloor heating. Their energy bills are triple glazed. "Most of the glass is on the south side, so the sun can warm the house. Warmcel recycled-paper insulation fills the 20in-thick walls, and a foam slab beneath the poured concrete floor ensures it feels ambient without any underfloor heating. Their energy bills are triple glazed," says Alex, who owns a fence-making business. Unused, the £1,000 kitchen radiator – now covered in art by Eleanor, 6, and Isabelle, 4 – is "the most expensive notice board known to man", he jokes.

To build Kintyre, as they call the home, the couple knocked down a 1960s prefab bungalow on the 10-acre site. "I had precast concrete walls, about an inch thick, that were the same temperature as outdoors," Alex recalls. "It was the opposite of living in a Passivhaus – a bit like living in a shed," Emily adds.

"They bought the plot for £1.5m in 2014. "We were first-time buyers – we looked for almost 10 years," Alex says. "We'd given up." Just before the birth of Isabelle, Emily was unsubscribing from estate agents' alerts. "I thought we wouldn't be able to see stuff any more. Then right down the bottom of one email was this place."

On the edge of a historic village, in the green belt and with the back door facing the Chiltern Hills Area of Outstanding Natural Beauty a few feet away, this is a



"sensitive spot", Emily says. Yet Kintyre's design by Tate Harmer, the sustainable architects now designing a hotel for the Eden Project in Cornwall, won planning permission on the first attempt – and is on the shortlist for a regional award from the Royal Institute of British Architects.

"A lot of the houses around it are traditional. The planners were keen to keep that feel, but we wanted to give it a modern twist," says Rory Harmer, partner at the practice (tateharmer.com). Their solution? The traditional shape of a pitched roof, but with clean lines clad top to bottom in timber "like a lovely, well-crafted jewellery box", as Harmer puts it. Replacing an icy prefab with a Passivhaus helped justify "special circumstances" with the planners. By knocking down outbuildings, they could add equivalent volume to the bungalow's footprint – enough to fit four bedrooms and two bathrooms in the vaulted roof.

As the 16-month build began, the couple and their daughters – then aged three and one – moved into a yurt and static caravan on site. "One morning, even the caravan door was frozen. Winter was horrible, but from March to October we were outside all the time. The kids became quite wild," Emily recalls. Having dreamt of getting a wood-fired hot tub at the end, they thought they would "definitely have spent all the money" by then. "So that was the first thing we got. While we lived in the camp, the girls got bathed in a hot tub. It was great."

On a botanist's advice, they let the meadow behind the house run wild, too, with "conservative management" of the already diverse grasses and flowers. "It grows up waist deep, then you cut it for hay around August. We don't fertilise it and don't use weedkillers or insecticide. It's turning back into a natural meadow – intensive farming hasn't left many." On its edges, they planted 1,700 young trees. That view now greets you through the glazing of Kintyre's double-height living space. Light pours down through the up-and-over roof light, and glass balustrades



Alex Paul, Emily Spry and their daughters, Eleanor and Isabelle, at their Passivhaus in Hertfordshire, complete with hot tub, below, and Merlin-the-lurcher-proof sofa covers, left



along the overhanging gallery connect the two floors. "Even if it's a miserable day, you get so much light, you feel like you've been outside," Emily says.

To protect it from Merlin, the family lurcher with a penchant for rollicking in the meadow, the L-shaped sofa was reupholstered in a turquoise commercial fabric. "We got mud and plonked it on samples then tried to wash them off," Alex says. "The best! AquaClean range won hands down (sanburydesign.com)."

Finishes are natural but robust: concrete worktops and plywood cabinets (birkwoodsotland.com). Jolts of fuchsia and teal inspired the scheme – inspired by a cloth Emily bought while working in a Sierra Leone children's hospital that now hangs above their bed.

Tucked away in the utility room is the kit that makes the house work: a mechanical ventilation and heat recovery system that provides the warmth from outgoing air and adds it to incoming fresh air. A thermal store retains heat from the woodburner to produce hot water, with an air-source heat pump as a fall-back. But the cleverest features are hidden in the walls: to prevent heat loss via "thermal bridging" from inside to outside, a split timber frame separates the support structure from the larch cladding. Gutters, too, are concealed beneath the cladding, creating the house's clean-cut silhouette.

The wood roof, backed by a rubber membrane, cost £30,000 more than tiles would have. The total project cost? About £800,000. "You can build to nearly Passivhaus standards and save, but for me the risk was if you hadn't spent on the right triple glazing, you'd be having dinner with a cold draught on your head," Alex says. "Now you have a super-stable indoor climate. It's lovely to be around."

HOW TO BUILD A PASSIVHAUS

Passivhaus is the ultimate standard for sustainable homes. If you want to be as eco-friendly as possible, where do you start?

● **Visit one before you build** The Passivhaus Trust has annual open days (passivhaustrust.org.uk). Go global at passivhouse-database.org/index.

● **Go all out to ensure certification** or decide at the start to merely follow the principles to build a low-energy house. "If you're aiming for full Passivhaus, it makes the decisions for you," says Rory Harmer, partner at Tate Harmer sustainable architects. "Do you spend £10,000 on the kitchen or the U-value of the walls? You need a level of safety to all components to pass that."

The whole hog adds 5%-12% to the build cost, estimates Jon Palmer, the Passivhaus Trust's policy director. That buys you not only ultra-low fuel bills, but also great comfort. He adds: "I moved into a Passivhaus last year. My family would never move back to our old home. The fresh air, the constant temperature, the environment is fantastic."

● **Involve a Passivhaus adviser early** They will tell you where to spend your money. "The house's orientation makes a big difference," says Akta Raja, founder of Enhabit, a sustainable buildings consultancy.

● **Think about the structure** and how it will stay up, then consider where it offers clear passage for heat loss from inside to outside. Designers often initially assume this "thermal bridging" value and later find there is more of it – forcing the owners to add insulation to make up the shortfall, or miss out on certification. At each stage, Kintyre, Etude consultancy designed a split timber frame to limit heat loss through the structure (passivhaus.etude.uk).

● **Watch out for overshadowing** from building and trees. Likewise, consider overheating in summer: you may need a brise-soleil overhang above glazing to deflect the sun when it sits higher.

● **Spend on the fabric of the building** rather than technology that will date. Alex and Emily sourced their doors and windows from Kaefer-Südenfenster, and roof lights from Fano. Enhabit has airtight triple-glazed sash windows approved for conservation areas. A mechanical ventilation and heat recovery system, such as those by Zehnder or Brink, is essential for fresh air. With ducting, these cost £5,000-£8,000 for a 1,500 sq ft house. If you'd like to add photovoltaic roof panels and rainwater recycling, but can't afford it with the build, consider laying wires and pipes to add it later.

● **Use a quantity surveyor** "It's like having a bulldog on your team," says Alex, who was initially sceptical but says Costplan saved them tens of thousands of pounds (cpsqs.com).

● **Get an insulated woodburner** or the house will overheat when it blazes. You can preserve its heat in a thermal store, which, in turn, fuels hot water.

HOW TO FIND LAND

● **Look for a run-down house** or a small house on a large plot to knock down and start over. Such plots are more commonly available than empty ones, often via estate agencies, and have mains service and road access in place. Most planning policies allow one home to be replaced by another, typically 30% bigger, according to Potton, a self-build one-stop shop that also offers free planning appraisals and courses in finding land.

● **Study Google Maps** in satellite and Street View for hidden plots.

● **Scour land listing agencies** such as plotfinder.net, plotbrowser.com and plotsearch.co.uk. Rightmove and Zoopla also list plots. "But by the time they get to the big portals, lots of people will have seen them. You're not going to get a bargain," says Gus Zogolovitch, managing director of the custom-build developer Unboxed Homes.

● **Check the planning register** at the council in your chosen area for recent outline applications that have not yet been decided. Sites usually go on sale after approval. If you approach the owners early, you could offer, subject to consent, before it hits the open market.

● **Ignore current plans** For outline consent, developers usually apply for the least controversial option. A good architect who has worked in the council area can often upgrade that. Likewise, they could help you overcome the planners' objections to failed applications.

● **Brave auctions** but beware scams to sell plots that will never get consent. Spend £500-£1,000 for a solicitor to check the title first.

● **Be ready to compromise** either on where you want to live or what you want to build. You're unlikely to get consent for an ultra-modern design in a quaint English village.

