

Episode 75

Is a HUF HAUS the Ultimate Turnkey Solution?

The show notes: www.houseplanninghelp.com/75

Intro: I'm sure you've heard of the name HUF HAUS. I wonder what you make of the brand? To me it has a great reputation both in terms of design and delivery.

Dani and James McDonald live in a HUF HAUS and I got the chance to visit their home on an event that the AECB organised called Pedalhaus. I was very impressed by what I saw so I asked them if they would share the story of their build.

I started by asking Dani about when they came up with the idea of building a house.

Dani: We were inspired when we saw a show back in '98 featuring Peter Huf and his new German modular designs. We were living in Bermondsey at the time and we both looked at each other and said, wow, wouldn't it be fantastic to build this loft that we're living in, this industrial loft that we're living in, in the countryside. And he really seemed to know what he was doing. He seemed very certain of the build, all the specifics and that really is what appealed to us back in '98.

Ben: So James, you were looking for a place to build this specific house. I'm intrigued, why a HUF HAUS? Why were you drawn in by that?

James: We weren't actually necessarily looking to build. I think the first thing was that we fell in love with the concept and it was mainly the sort of technology and the open plan. I think we knew we wanted to move to the countryside at some stage from the city when we had kids and they got older and stuff. But a lot of the places in the country are kind of quite dark and low ceilings and all that sort of stuff, and we wanted big, open loft space type idea and that's really where it came from. It had won quite a lot of design awards as well in the late '90s which, we are quite into architecture and that sort of thing, so winning RIBA awards or whatever means something must be fairly well designed I guess. And it is a clever design.

Ben: How did they pitch this at a conference, because it's one thing being in a HUF HAUS, but how did you know it was a good idea just be looking and chatting to him?

Dani: We met with Peter Huf when he had only one and a half houses built over in Surrey. He'd built a house for a mother and he had two sons who followed in the mother's footsteps. And we went and actually met him, and his wife and his family. The thing that struck me was that he took the desire lines of a family into consideration and it was very, very bespoke to your lifestyle. Of course the efficiency again was just the respect that they had for them for when they came to a plot it was a silent build, there was no noise, everything was pre-fab it's just screwed in together, so it's very very quiet. It's not loud on the environment. They invite the countryside and the environment into the house which also really turned me on because if you have a glass house you want to feel that you're absorbing the outside inside. He didn't really have to sell us too much. I think we knew we wanted one but the more we spoke to him the more and more we were keen to find the right plot to build this house.

Ben: And James, I know having a bit of an insight into this project that that was a major challenge.

James: Yeah, I mean the plots are difficult. We were living in London at the time so we looked at essentially four or five counties. We were looking at Hertfordshire, Essex, Kent, you can't narrow it down to a local area so easily, and plots are also very expensive, so we did look for a while. We had one that fell through and eventually we bit the bullet, sold up in London and came down to this area which was kind of our favourite area and rented for a while and kept looking and we were lucky enough to find this one. But once the estate agents know what you want you get first advice and you can get in there quite quickly. We were lucky to find what I think is a fantastic plot.

Ben: So I'll describe the situation. We are sitting in a room at the moment that is looking out on trees, through both of these windows and even if I look back through the other side of the house, the beautiful garden. That's very difficult to find as far as I'm aware, so was this sort of plot on the market, where you can't see another house?

Dani: Well I was doing a lot of the groundwork. I was driving back and forth from London every week for almost I daresay 10 years, which sounds crazy! And I wanted where you couldn't see anyone but it also had to tick the boxes of good schools, it also had to tick boxes

of a good mainline train, and also access was a really big issue because the enormous articulated lorries that they were coming over with, and the crane. You couldn't be down these tiny little lanes or tiny little drive alleyways, you know a lot of them we looked at. So although you might have found an ideal plot that was isolated and ticked all the other boxes, if you had overhanging trees or if you had a very narrow entrance to the plot they wouldn't have been able to turn the lorries and all the rest.

The other issue was that a lot of the plots that I looked at, the residence or the buildings were close to the main road and again we didn't want that because we wanted a footprint behind. So when we got offers we couldn't refuse on the loft up in town I just spent every day up and down, up and down, every road putting my name in letterboxes, you know in the estate agents' offices, looking through their filing cabinets, doing everything I could. Really it was a full-time job.

And fortunately I think a lot of it was luck. This property came on the market on a Monday. It wasn't even drawn up in a proper format, and one of the estate agents who I was working with gave us a tip. She said, look I think this is going to be great for you. We went to see it on a Wednesday, made an offer on a Friday and it was accepted which was great. Then he got further offers but he turned it down so again we were very lucky because he shook our hands and he was actually a decent fellow at the end of the day, who we bought from. And we decided, okay this is it, here we go, no looking back!

James: The other thing was that it did need to have a habitable property on it. Dani was not prepared to live in a caravan, which is probably understandable! And we did see other plots, where it was with sort of fire damaged houses and stuff where they were great plots but the cost of making the property that was there habitable while we got the planning permission etc, would have been too much, so we needed somewhere that had somewhere to live while we were getting the permission and designing the house and all that sort of stuff. Because obviously you can't really design the house until you've got the plot.

Ben: Which in a way is quite interesting because a HUF HAUS is a kit house, isn't it? But how bespoke does it get then to your plot?

James: Well it can be as bespoke as you want really. I mean you can have any size that you want. I mean some of the ones I think they're building out in China and places are 10-12,000 sq.ft, so I always

compare it in a way to Lego. I mean when you're a kid playing with Lego you know you had the blocks, so that was the restriction, but after that you could build whatever the hell you wanted with the blocks really, so it's very bespoke. Obviously the internal rooms etc, are all bespoke, but in terms of the height and the shape, and you can see here we've got a lot of different shaped rooms, it's completely bespoke really.

Ben: The factory that they have, or show village, out there, was it important to go to that or could you get enough information from afar?

James: You have to go there from a perspective of choosing all your fixtures and fittings basically. So we didn't go there until the house had been designed. It was quite late on in the process and you go in and then you're choosing . . . because all the fitted furniture is all HUF – the kitchen and bathrooms etc, and then obviously you've got your carpeting and light fixtures and everything. And it was quite an intense process because I think we chose the whole lot in pretty much a day, and it had everything there. We'd already had the basic price of the house, and everything is priced in right down to the last door handle, but then it's kind of what do you want in addition to that. And they had you know, taps for 16,000 Euro's, a tap and things that had all LED's and all sorts of funny things, but the choice was immense. It was quite difficult to narrow down exactly what you wanted. I think it was the budget really that narrowed it down mostly for us!

Ben: It's a bit like having a car and choosing that, you've got the basic model and then built up.

James: Yeah, very much so yeah, but with obviously a lot more options.

Ben: Going back to the plot for a moment, so maybe you could tell us a little bit about what was on it Dani and whether you thought you could last the time?

Dani: Oh gosh, yeah, it was a family that lived here from, I think they bought the property, or actually I daresay they were probably given the property, back in the '70s. And they lived in a shed with no electricity, a tap outside from at least '74-'82. But they really lived off the land this family for a very long time and when we got here I did think, oh my gosh. I had to really gut this house / cottage out and just do so much work so mould wouldn't grow, so when we took a shower it wasn't electrocuting us because the wires were touching the pipes.

But the advantages of living in that house while we watched the light, while we watched the seasons, I couldn't put a price on that. Because you could really see how the sun fell in the winter and how it burnt through in the summertime and that very very much determined where we were going to situate the various rooms of the house once we broke ground. And that was something an architect just couldn't draw that up, you know, you had to be here to see that.

Ben: I always think that a HUF HAUS, because it has this reputation of being put together in a matter of just a few days, that once you've got your plot so now it can go up, but I'm imagining it's quite a big space in between there?

Dani: Yeah, and also like James was saying, our budget was also a big dictator. The Euro went parity with the pound at the time so the advice that they always give you is to put as much into the Euro as possible in the very beginning of the build, which we did, but still you can't predict the flux of the economy and everything.

So, yeah there's so much you can do but then it's not actually until you sit down and start drawing things out that you realise. Because it's very abstract, it's not like you're walking round a house that you're renovating. This is all very two dimensional at the time. It was very abstract to figure out, oh gosh you know, if the living room is here will we be able to see through to the dining room? So we tried to make it feel as organic as possible, even though it's very geometric and rigid.

Ben: What was important in terms of using that daylight for the different rooms? What did you want where, did you know? Or was it a game of playing?

Dani: Yeah, I knew we definitely wanted the façade that was all glass to face north because that's where you get the constant light. I knew that from art school, all studios face north. We knew we wanted the kitchen in the east, and a dining room in the west, and I had different giant stakes that I had been running around in the field putting down at different times of year, and saying this is where I want you know the kitchen to be facing. We changed the whole entire aspect of the house about 20/22 degrees, I daresay a couple of weeks before they broke ground which really freaked them out! They were just like, you can't do that, and we were just like, yeah actually no, sorry but . . .

Ben: But why?

Dani: Well a) we wanted the light in the morning to be in the east in the kitchen, and b) we realised that when you came up the drive it was more about the journey than the destination. So we didn't want it to sit on this slope as a corporate house, obvious in your face, we wanted it to curve. And it wasn't easy to get them to do a curve [Dani laughs]! You know, very up and down. So we said no, we want you to discover this house as you come up to the property because the drive is rather long, you know it's a good 300m drive and then another hundred metres to the house. So we thought wouldn't it be lovely to discover this house and have it sitting there very ostentatious and so that's why at the last minute we said no, let's move this a bit [Dani laughs]!

Ben: And James, what happens once you get moving then on the build? Maybe you could describe that process?

James: Well it was a very easy process actually. I mean the whole thing, we had to move 3000 tonnes of earth to put the basement in, and from starting that process, which we started in the snow, to moving into the house was 5 and a half months so it was essentially an easy process.

I think some of the HUF HAUSES are easier if they don't have the concrete basement, if it's literally just the foundations and then up. But the first thing was to put the foundations in, then they put the concrete basement, which was also pre-fab'd. It's a very strong concrete, the same as they use in the autobahns. If you try drilling into the concrete down there, it's nigh on impossible which I've had to do!

So it was a very quick process, but the top side, so everything we see on this floor, including all the glazing downstairs and all tiling on the roof, that was all done in a week, which is you know incredible. It was incredible to see it. We did a little bit of homespun time lapse photography just to show how quickly it was happening.

Ben: Is it always this layout that the bedrooms, almost an inverted house, the bedrooms go at the bottom and the living quarters at the top, or is that just the way you wanted it?

James: Well it wasn't really the way that we wanted it. They're not normally like this, although it's quite common in Europe, but for us it was once we'd spoken to the architect it was a bit of a no-brainer really. Because obviously we've got great views from here and there's no

point in having great views from your bedroom and then living underground essentially.

So we wanted the great views here and then put in the bedrooms downstairs, and actually there's a massive benefit to that which is when it's hot in the summer, as you go down the stairs you can feel the temperature change, because obviously you're buried so it's much cooler which is ideal for sleeping in the summer and the converse applies in the winter when it's a bit chilly. You go downstairs you can feel it getting warmer, so it works perfectly.

And whilst it is a basement you've got a solid wall of glass so you don't feel like you're in a basement so one wall in each bedroom, or more than one wall in our bedroom, is glass.

Ben: That was one thing that really interested me when I first saw this, is the ventilation itself, because we've done a lot of podcasts on Passivhaus, where airtightness, obviously this is an airtight structure, but one of the advantages of using the airtightness is in the ventilation system that you have control, but there's no ventilation system in here, so what does that mean for the indoor air quality?

James: What you can do is over time, depending on the temperature etc, in the winter you're not going to have as much ventilation but there are a lot of options in terms of the ventilation here. The technology they claim is Roman technology so the idea being that you have these windows quite high up so that if you open a few of them you just get a steady breeze going through the top, so that removes the heat from the air in the summer. And even right at the very top of the building we've got some windows on motors which do the same thing and each of the bedrooms has a door/window where you can ventilate from there.

So you're controlling the ventilation yourself, it's a manual process and obviously you have more things open in the summer and in the winter you have less things open from a temperature perspective.

And one thing worth pointing out as well in terms of ventilation in the summer, a lot of people would think if you're living in a glass house that it's going to be really hot. But one of the clever designs is as you can see up here, is that they have a massive overhang with the windows, so that causes two things to happen. First of all, you'll very rarely get rain on your windows and we've got 105 windows in this house, so the cleaning costs could be massive! So we don't get rain which means you don't really need to clean very

often, and secondly, in the summer you don't get any direct sunlight into the house, except first thing in the morning and last thing at night, so it's not like living in a greenhouse. So all you need then is the ventilation and it's quite a bit cooler in the house than it is outside.

Ben: Another part of the HUF HAUS which seems to be almost a key point, is this two sidedness. Are they all like this Dani, that they have the two pitches?

Dani: No, this is called the butterfly house, they call this one, which is not a very masculine name for a very masculine looking house! So again every one of them is bespoke and they do it by bays. I think they start off at 4 bays, and then they go up to 8 bays. This is an 8 bay. The whole thing is worked out on a 2.5 square which are what these windows are surrounding us, and then you tack on, like James was saying Lego, however many you want.

And again also they look at the site and they take very much into consideration what they'll be permitted to build from a height point of view, from an impact point of view and they recommend so many things. And obviously if you don't get permission for one size or one shape they can do other shapes. You know they can just do a more traditional build, they can do a build where you have a very long roof on one side and a very short roof on the other. They call that a saltbox house in the States. I think this is their crown, in a sense that this is the one they are mostly known for and we were very lucky to get it. We're very happy we got this one.

Ben: I have heard an architect mentioned a couple of times, is that one through HUF HAUS?

James: It's actually Peter Huf who, I mean there's three brothers who, it's a family concern essentially. It's been going since I think the early part of the 1900's. Originally it was a timber company and then they moved into houses and obviously it's a timber framed house. But Peter Huf went to I think Chicago University and studied architecture and his brothers were also architects, so they're part of the company but they're also the architects for the houses.

Ben: Even today do you think?

James: Yeah yeah, absolutely. I mean they're the next generation. Peter is probably in his 40's I guess, late 40's.

Ben: Something that I heard you mention before is that they do tend to come back and have a look over the structure every so often, which I think is a good follow up service.

James: Yeah, it's a bit like buying a car where you get it serviced though. They've got I think about 160 of these houses now in the UK so they're over here on a fairly regular basis. Obviously we're quite close to the Channel Tunnel so they have to come past here I suppose fairly regularly and yeah, they'll come past and see if anything needs doing. They'll recommend you know, as and when you might need things painting etc, and just come by and see if there's any issues with the house. And that's sort of a continuing process. And it's quite useful because obviously they know the house and how it's built better than anyone else so it's good to have them involved.

Ben: Were there any other challenges in terms of once the structure was up and just getting it habitable into a house, a home?

Dani: It was so overwhelming because everyone knows the stress of having a room, a kitchen say, redoing your kitchen. Well the amount of manuals that I used to have to go to sleep reading. And that's one thing I probably should have done is ask for the manuals before we actually built the house because we had I can't imagine how many new appliances, and clocks to set and just different gadgets throughout the house. So that was a bit tricky at first but it all runs so smoothly and they do talk you through it.

There is definitely this handover transition where they show you and they set things up as a *this is what generally is used*, but then obviously you can tweak things, put your own fingerprints on how you'd like things set up, whether it's your lights being dimmed to a certain level.

But there's a lot of bells and whistles in the house that you just think oh gosh, that's how you dim this light, I didn't realise there's another switch here, and so it took us a while to settle in with that. I say a while, a few weeks. But again, because we designed the kitchen the way we wanted it all our fixtures and fittings and things like that, our own things, just fit in very very easily.

The kids loved it. They couldn't wait to get in their bedrooms and put all their stuff everywhere and put their fingerprints all over it, so I wouldn't say it was challenging, it was really exciting. It was really a whole whirlwind of getting in and making it ours really.

Ben: And what's it been like to live in?

Dani: We love this house. I appreciate it every day, I have to say, I really do wake up every day and appreciate it because we worked so hard as a family and really as a community. The support I had from friends and family, to say don't worry, you'll get it built, because we were there for almost 3 years in the little house. And it's great because we knew when we had our friends down from London where they'd want to sit and read the newspapers and they do. And we knew when the kids' friends came over and they wanted to make a stir fry where they'd gravitate towards, and it's very intuitive, the house is very very intuitive. If you want a glass it's next to the sink, if you want a cup it's next to the kettle, if you want, I don't know, a towel it's right there in the bathroom. It's just very very comfortable, easy, very accessible house to live in and we love it. We have so many parties, inside outside, four seasons, yeah, we have a lot of fun in this house.

Ben: The renewable technology is quite well hidden, but maybe you could tell me a bit about that James?

James: Yeah, we did look at solar panels but at the time the solar things would really be for hot water heating. It wouldn't be for electrics, so we didn't go that route. For the heating we've got a ground source heat pump, which basically involved putting about 800m of pipe out into the field which was quite a cost efficient process actually. Then there's a heat exchanger downstairs so that does all our heating and all the hot water so we've got no oil or gas bills.

We also drilled a well on the property which originally we were running the house off. We're now actually on the mains but we run all the water, which is quite considerable, in the garden off the well which means obviously if you get a hosepipe ban in a drought time we've got plenty of water to keep the plants going. Other than that that's all we did. So we get water and electricity in and the rest of it is done on site as it were.

Ben: Is there anything else that we should have mentioned, maybe big gaps in the journey just before we finish up?

Dani: I have to say, if you had to do it all over again yes, you would do it maybe slightly differently. But you can't predict any hurdles that you're going to come across. There weren't any hidden costs with this house at all, that's one thing I have to say. It was done on time, to budget. There were no surprises at all. And it was a real pleasure once, you know, the process had got underway. What it takes to

get to that point, nobody can predict. Nobody knows. What's going to happen nobody knows, it's going to be a snowstorm on the day you decide to break foundation, and so that I guess was part of the excitement looking back. But a bit stressful as you're going through it at the time [Dani laughs]!

But we became closer. I kept saying it was either going to make or break us, and I think it really made us as a family because the kids are very proud and everyone who comes up here is really respectful to it, young and old, they really respect the house and they really appreciate the space and I think they really enjoy being here.

Ben: And what have you learnt through this process that perhaps you can pass on to someone else who wanted to self-build?

James: I think just perseverance really is what you've got to do. If you have the dream I think you've just got to go out and grab it. You know we were lucky enough to be able to afford to do it and it was a long process. I mean really from inception to moving in was a 10-year effort, although we weren't looking to do it immediately, but that was it really. But certainly I would recommend this. If I was ever going to build again I would only do a HUF HAUS I think.

Something I haven't really mentioned is the quality of everything. You know, the way it's built. Actually the technology in this wood is exactly the same as they've just used in the new Crossrail station at Canary Wharf. That wooden structure is the same stuff. The fixtures and fittings, going to other places and seeing how the doors work and you think, oh my god this is nowhere near as, I mean everything just fits perfectly. It's very Germanic. It's how you imagine German cars and stuff, well they build their houses the same quality standards really.

Ben: James and Dani, thank you very much.

James: Yeah thank you.

Dani: Thank you.