HOUSE PLANNING HELP

Episode 48

Making Incremental Improvements to Your House

The show notes: www.houseplanninghelp.com/48

Intro: Let's get into today's interview. It's with Sarah Lonsdale, a journalist who writes all sorts of interesting articles on eco living. I'm frequently sharing them on the House Planning Help social media pages. When I got chatting to her about doing an interview for this podcast it was clear that she'd love to build an energy-efficient home or to retrofit a property but the finances weren't quite there at present. It's possibly something you might be dealing with yourself. Finances will limit all of us in some way, shape or form. So I thought this was really interesting because it hasn't stopped her from making incremental improvements to her home as and when money becomes available.

I started by asking Sarah to explain a little bit about her writing and how she came to focus on environmental issues.

Sarah: I've always been a journalist ever since I graduated from university and was a news reporter for a number of years until I went freelance to write features when my family came along and I wrote a wide variety of, I suppose, homes and lifestyle features, property, gardening, food, parenting, all those weekend type features. I was particularly interested in the environment as I read more and more news reports about climate change. Then there was a very big report put out by Christian Aid in about 2002, which really laid out the impact of climate change particularly on sub Saharan Africa, droughts, homelessness and people being really badly affected by it. And it just really hit home to me and I thought as a developed country that has enjoyed a lot of growth through carbon emissions that there is really a lot we should be doing to lead the way if we want everybody even developing countries to start reducing their emissions.

Ben: Is it easy to be able to find somewhere, an outlet where you can write about this?

Sarah: I'm very very lucky in having my editor of the life section of the Sunday Telegraph. She is very supportive, she doesn't really interfere with what I do as long as every week I produce a nicely polished story. All my stories are pretty much based around ordinary people doing sometimes extraordinary things, getting on

with their lives, and as long as I produce good copy which is readable and helpful and useful to readers then she pretty much leaves me alone actually which is great.

Ben: What have you learned, I don't actually know what length of time you have been doing this, but what have you learnt in that time?

Sarah: I've learnt a number of things particularly how to do things and how not to things to one's own home when it comes to trying to improve energy efficiency. I've learned that readers, readers even of fairly conservative newspapers, are actually very very interested in energy efficiency, particularly obviously from the money saving point of view, but also from an environmental point of view. They are really all at sea and lacking information and lacking the confidence to tinker with their homes particularly if they have got old homes. They are worried about damp, they are worried about what messing around with the fabric of the house will actually do but they are really interested. I get hundreds of emails from readers saying that I read your article please will you let me know how I do this or that, and that's been really gratifying actually.

Ben: Is there enough information for them? Presumably you don't have to answer all of this, do you send them off to different resources?

Sarah: Yes I send them off to different resources, websites like Greenspec or the Green Building Store but it's actually the information they need comes even before the kinds of material they need. They just need somebody to sit down and hold their hand through the process. Nobody even knows really where to start, sometimes they don't even know where their draughts are come from, they don't know whether their walls are cavity wall insulation or solid wall. There is still an awful lot there that people don't know about how their homes work, what thermal bridging is, all that kind of thing that really these days people need to know if they are going to start making their homes more efficient.

Ben I have to say that I enjoy reading your articles and I find it very hard sometimes to source appropriate content that I feel that people who follow House Planning Help will enjoy but I never struggle with you which is why I wanted to interview you. We've settled on a topic which is quite interesting and I imagine a lot of people will feel like they are in this category so you wanted to . . . Well what would you do if you could do anything in terms of building your own house or retrofitting an existing property, let's say the sky is the limit?

Sarah: If the sky was the limit I would start from scratch, I would build probably some kind of Huf Haus or Passivhaus building. I live myself in an old 1920s draughty home. At first I thought I loved it, lovely character, original fireplaces, original characters but actually having visited beautiful eco homes for the last five to ten years I'm really jealous and I would love to live in an airtight Passivhaus.

Ben: OK you and me then we're here together. So not being able to do that straight off, you never know in the next couple of years wherever life will take you, you've tackled a certain number of aspects of your house and put together a list, a top thirty which I think probably we'll make into a top ten but I wonder whether you can just talk us through. Where are we going to start - at ten or one? I suppose we should finish on one or does that ruin the numbering system you have put here?

Sarah: Yes I mean it's a fairly random list to be honest. I mean the first thing we did was to put in cavity wall insulation. Although it's a 1920's house it does have a cavity. That did work very well in fact we noticed that on our fuel bills pretty much the winter after we did it the house felt generally warmer and the bills were lower.

However I think that it's probably, we used blown glass fibre and I think it must have settled a bit because I'm just feeling that it's not giving the kind of rewards that we initially enjoyed and I think that's one of the problems with cavity wall insulation, I think that the techniques and products have changed a lot even in the last 15 years since I've been in this house and I think I would if I could afford to I would rip it out and start again with these polystyrene balls. I think they are much better, they don't settle and they are also inert so that's one thing I would, I think it has really helped but I think even in 15 years technology has moved on. So that's the first thing that we did.

Ben: Let me stop you there because I have a quick question. Is there any risk in filling cavities?

Sarah: There have been reports particularly of cavities filled in the 70s and 80s where the material they used was an expanding foam which then hardened and that has occasionally caused damp problems. However in recent years the type of materials that have come onto the market are much better, they take into account the possible damp problems. There are still areas of the country particularly where you have driving rain coming from the west, up on the west coast of Scotland for example, where cavity wall insulation is not recommended because of the possible damp problems but now in

most of the country if you use the latest materials there shouldn't really be an issue at all.

Ben: Next on the list?

Sarah: Next on the list was . . . As I say, this house was incredibly draughty and we would sit in the living room at night and the doors would creak and there would be funny noises as things moved around. So what we did is we internally insulated the living room with sheep's wool insulation and then on the top of that we put a rather beautiful tongued and grooved boarding all the way around and it's really snug, it's the warmest room in the house. We also changed the open fireplace to a very super efficient wood burner and that room is as snug as anything now and it doesn't let out any heat at all it doesn't seem. It gets very hot in the evenings actually if we have a wood burner [on].

Ben: I get concerned with internal insulation so what preparation did you do for that to know that it wasn't going to cause any damage to the external wall as presumably that would get colder?

Sarah: Well we did a lot of investigation and we didn't want to use anything synthetic in the living room just because we were slightly concerned about what putting synthetic materials against the wall would do so that's why we ended up with sheep's wool insulation. It's naturally thermally efficient, it's supporting Cumbrian hill farmers and it is also, it absorbs moisture and lets it go when the air around it gets drier. It's a wonderful natural material and so we were very happy to be using that.

There has been, I know, some readers have written to me saying that they have used sheep's wool insulation in some cases and they have had moth infestations. We used a sheep's wool insulation that had been treated with anti-moth treatment and we haven't had any problems at all and then the wood panels they are breathable again and we painted them with breathable paints. We've never had any problems with a build up of moisture on the outside wall.

Ben: How did you target that area as somewhere you wanted to do this improvement on?

Sarah: Well I actually took advice from a well-known green Donnachadh McCarthy who said to me, I went to interview him very early on when I started writing my columns. He said to me if you only have the money to insulate one room make it your living room where you

spend most time particularly in the evenings because you can always withdraw into there and then once it's bedtime run as fast as you can under your duvet and so that's what we thought we would do. We would start off, we didn't have very much money, we had little kids, always a drain on the purse and we thought right let's do the living room, let's make it really nice and snug and then we can always withdraw into that room in cold winters, have the wood burner on and it's worked a treat.

Ben: Do you want to continue on down the list?

Sarah: So I would say the next thing was our new loft. We put in a loft bedroom when we first moved in. That was back in 1999, I didn't know anything really about insulation then. I wish I had known much more because it was a very flimsy construction literally a kind of a wooden shed on our roof and it's been absolutely freezing. One of the best things we did about three years ago was to go round the entire walls of the room and put Celotex insulation and then plasterboard and also tongue and grooving as well so it looks like a lovely little snug cabin. It's changed that room from being unbearably cold in the winter to again being really snug, really warm and it really retains the heat now.

Ben: And are you ever concerned about ventilation or because the rest of the house is so leaky it's not really something that would cross your mind?

Sarah: The rest of the house is still quite leaky but we also have ventilation. There's a bathroom up there as well and we have ventilation there. We also have the good old fashioned open a window and we've never had damp problems up there.

Ben: OK next?

Sarah: Sometimes really simple things help. We have a north facing hallway, a north facing porch and although it is well insulated we've had an issue with cold coming right through the front door. We've tried to insulate the front door but the letterbox again lets in cold air and so really simply we did two things. The first thing we did was we put in a door between the porch and the hallway, it was a properly insulated door and we took out the single pane and put in double glazing and it's made the most incredible difference.

We also had a thermostat, we had and another thing I would recommend is the boiler. We changed it to a condensing boiler and we had a thermostat for the first time in its life this house had a

thermostat. Now prior to having the door between the hall and the porch installed the thermostat which was in the hallway kept dropping in temperature 18, 17, 16º when the rest of the house was perhaps 19, 20, 21º and so the boiler kept coming on unnecessarily. What having the door did was to make the hall area much much warmer and so now the boiler comes on far far less and it's really really made a huge difference to our recent fuel bills to have that door there for both those reasons.

Ben: What's giving you the ideas for these areas? Is it where you perceive there to be the coldest most effective places. How did you come up with these solutions?

Sarah: Well the hallway was just really really cold and much colder than the south facing back part of the house. Other things obviously as part of my job I've had interviews with an awful lot of people who know what they are talking about, Parity Projects for example is a great retrofit company, they came round and did a survey of my house. I had another company who came round with a thermal imaging camera which was really useful and I would recommend that if anyone is thinking of having some retrofit work done get a thermal imaging camera. You can really see, for example, we found that there were some huge gaps in the insulation in an extension roof that we had put in about ten years ago and it really helps you target where want to put the work. If you don't have the money to do the whole house retrofit all in one go which is probably the best thing to do but it can be quite expensive, I should think 25 to 50 thousand pounds depending on the type of project, and so if you are doing it like we did it piecemeal it's very useful to have somebody who knows what they are doing come to take pictures, come to do draught tests, that kind of thing in your house.

Ben: We're probably about halfway through the list but I haven't really been keeping track so I am hoping have. Are we about half way through?

Sarah: I should think we are about halfway through. One thing I want to talk about is windows, we have got an awful lot of windows in the house. When we moved in they were all single paned steel Crittall windows and I've still got a few left. They are pretty awful, they are very draughty, they have all gone out of shape, I mean they are all 80 or 90 years old now and so we've tried an awful lot of different types of windows.

One thing we did try first of all before we really got the hang of the energy efficiency thing was just replacement steel framed Crittall

windows. They looked beautiful, they looked like the real thing but there's a cold bridge all the way round where the metal frame is and that really didn't work and we got a lot of black mold particularly on the bedroom windows where we did that which showed that it was very very cold there but then we put in some triple glazed windows in the north facing side of my children's bedrooms. That worked incredibly well really really good, really snug but obviously pretty expensive. They were about two and a half thousand pounds each so when we ran out of money we got a carpenter to put fixed secondary glazing in our other north facing windows and I would say that's worked almost as well as the new windows. Aesthetically not particularly as beautiful as brand new timber framed triple glazed windows but they do the job: it was only about £160 per window and for the moment that's what we are using and it's worked really well.

Ben: Has this budget become available to you over time? Is that how you are doing this or did you think at the beginning we've got this pot of money to spend over whatever period?

Sarah: No it's really ad hoc just when we've got a bit of spare cash if say we've been on holiday in Scotland rather than abroad. One year we might have had a bit more money it's really been as and when we have found the money to do it. Occasionally we've re-mortgaged so to do the loft work that was about £5000 and we actually took out some money on the mortgage to do that but with kids you never have any spare cash so it's really been as and when we've found the money to do it.

Ben: I've got a kid on the way I don't like the sound of that. OK our next one.

Sarah: OK so the children's playroom, well it was the playroom it's now really their homework room and music room, very cold northeast corner of the house and we haven't replaced the windows there so what we did we had floorboards which looked very beautiful but actually, in fact it was Roger Hunt the green writer, I interviewed him and he told me that if you put all the holes in the floorboards, between floorboards together, you kind of make a great big open window in the floor of your room and I had never looked at it like that before and it was just so obvious, such common sense. So what we did was we found a really thick thermal underlay made out of recycled car tyres and then we put down a really thick woollen carpet and it's made an enormous difference. I thought about lifting the floorboards and putting insulations between the joists but really it was just far too expensive but we've minimised the draughts and

we have also stuck a brilliant thing called a chimney sheep up the chimney which is an open fireplace there.

Ben: Did you say a chimney sheep?

Sarah: Yes, it's a fabulous invention by a woman who lives in Cumbria and it's a thick mat of felted wool and you measure your chimney void and you literally just shove it up and the draughts have just gone to nothing so that's a really nice simple very cheap, it was twenty quid, thing that we did.

The next one I would say is, the design of the house has quite big dormer cheeks in the north facing side of the house in my children's bedrooms. I had never really thought about that and actually it was when Parity Projects came round and did a report on the house they said have you noticed these, they are only a little bit of timber and a little bit of plaster, and that was it. So no matter how much we improved the windows in the children's bedrooms they still felt very cold so we replaced, we took out the old plaster we put in thick Celotex and then re-plastered and even though I would say the square footage of those dormer cheeks, I would say it's only about 12 square feet it's actually made an enormous difference because it's on the north facing side of the house. And that's a really good example of where ordinary home owners just don't think of that kind of thing, it's a small area it's something that you wouldn't even notice but actually being given the right sort of advice can make a real difference.

Ben: OK I've just been totting up and I think we have completed eight now – number nine?

Sarah: Number nine would be getting rid of an old back door that was never used that was draughty so we literally just boarded the whole thing up, we stuck some insulation between the door and the boards, we replaced the window with a double glazed window and again it was a small area it was probably about four foot by seven foot. You would walk along the wall and where you found that back door you walked past the backdoor you could feel the draughts playing around your feet and then you walked a bit further on and the draughts stopped. So again, just making use of common sense and just also, that was a very very simple thing I think it cost us it was a kind of DIY job plus we got a glazer in. It cost us about 50 quid and it's made an enormous difference in the comfort of the kitchen.

Ben: Let's have our final one then, number 10.

Sarah: Our final one I would say is thermal window coverings for those beautiful period windows that you don't want to lose. We've got some Crittall windows that we either haven't been able to afford or we haven't really wanted to replace and so what we've done is we have had thermal triple-lined window coverings either blinds or curtains and that you just close the night air away you pull down the blinds, you close the curtains. Again it's a very easy win, it's not particularly expensive we've only done it when we've need to replace the curtains anyway and it's really helped keep the heat in. This old house all its radiators are underneath windows and so the heat just goes straight out of those windows. This way we help retain a lot more of the heat and it's and it's very very snug and it's very simple and an easy win.

Ben: You've actually put together a list of 30 different items and we'll put that up on the website, on the show notes for this particular episode. Just as we wind up then have you changed your lifestyle or anything else that is worth mentioning how you live in this house?

Sarah: I think we have, we are all very aware of recycling which we never were before. We compost we grow our own potatoes we give lots of our vegetable scrapings to the rabbit who then provides us with lovely straw for the compost which works very well plus he is a much loved member of the family.

I've also done an awful lot, not just in terms of energy efficiency, but ecological changes to the way I live. I make my own kitchen cleaners now using borax substitute and vinegar and a bit of essential oil so I don't have to keep buying plastic containers every month. So yes I do although you know we are normal people we not, we don't wear sandals and knit our own spaghetti or whatever. We are just a normal family who is just trying to do our bit to reduce the amount of waste we produce, to reduce the amount of resources we use from this planet.

Ben: Sarah, thank you very much for all the information today. It's been great to meet you.

Sarah: Good to meet you too. Thanks.