

TWO WOMEN, AN ECOBUILD



& A FULL TIME JOB

Jenny Pickerill tells the story of how she and her mother built their eco house.

We have just swapped several of our spare pallets for manure from our neighbour, a small-holder. At last the potential of turning our clay mud patch into a lush permaculture plot seems to hold practical promise. We have lived in our new eco-house for 11 months now and at times progress has been very slow – we are still working on our drains.

We had long held a dream to build somewhere that not only reduced our environmental impact and facilitated a more environmentally friendly lifestyle, but would also dramatically reduce our running costs and increase our resilience to climatic uncertainty.

Deciding to build an eco-house with my mother generated a surprising number of shocked responses from friends and family. They variously thought Maggie to be too old (she was only in her late 50s) for such a

challenge, and that she would cramp my life choices. Few understood how our skills, ideas and dreams complemented each other. Maggie had explored the idea of living in existing communities and we met with others interested in establishing new eco-cohousing schemes. But we realised we did not want to wait for the slowness of collaborative enterprises and that living together would provide enough challenges, and entail new ways of working together as it was.

We have taken a very pragmatic approach to the build. Inspired by the Centre for Alternative Technology and the Autonomous House we started with a utopian vision which was quickly scaled down. Our choices have been very much shaped by financial and practical limitations and a desire to complete the project so that we could get on with living the way we wanted to. We were determ-

Above: The passive solar designed eco-house from the South.

Below: Jenny and her mother Maggie who built the house together.

ined to prove that an older person and someone with a full-time job could still self-build and be eco. Although we had a sizeable budget it was also only slightly more than the average house price, which stood at £219,262 in June 2008 – and we had no back-up plan.

This budget bought us a small (10th of an acre) triangle plot in rural Leicestershire, near Melton Mowbray. By facing south the house makes the most of passive solar heating through large A





Above left: Clearview wood burner provides back-up heating.



Top: Low energy lighting is used throughout.

Above: Maggie varnishing one of the reclaimed pine floors.

rated timber-framed windows, with thick dense block walls (made from 100% recycled aggregate) creating a high thermal mass (with sheepswool insulation in the roof) and reducing noise and vibrations from the abutting railway line.

We wanted to build a house that was cheap to run and simple to maintain, only using technology we could understand and if necessary learn how to fix. The house remains at around 17°C without heating, even in winter, though we do have a Clearview wood stove as a back-up. Our solar thermal evacuated tube arrays also work all year round, and when the sun is not shining we heat water either with the wood stove or an efficient electric immersion. Our rainwater harvester feeds the toilets (low-flush IFO CERA from the Green Building Store) and washing machine, and we have low-flow showers to reduce water use. Energy use is much reduced by an induction cooker, A+ appliances, low-energy lighting and the bright aspect reduces the need for lights to be on.

TIMELINE OF BUILD

September 2004	Find the potential plot
October 2004	Successful sealed bid for plot
April 2005	Land purchase completed
June 2005	Submitted Detailed Planning application
August 2005	Approval of reserved matters
October 2005	Building Control plans submitted
November 2005	Building Control conditional approval
December 2005	Start searching for Building Contractors
March 2006	Employ Oliver Hemsley as project manager
April 2006	Building starts on the site
October 2006	Walls finished to roof level
March 2007	Roof finished
September 2007	Moved into house
December 2007	Interior finished
January 2008	Start working on external elements of house
February 2008	Drive and back sheds finished



Top: Plenty of light and ventilation in the bathroom.



Above: Hand painted tiles in the kitchen.



Above right: Seating area on the untreated Douglas fir decking.

We tried, wherever possible, to source reclaimed, local, and untreated material: Our reclaimed pitch-pine floors came from an old Liverpool factory via the local salvage yard; our reclaimed pine kitchen units and internal doors were made in Lincolnshire; our Douglas fir deck has been left untreated; our jute and wool carpets were ordered from the local shop. We, of course, carried on using existing furniture, rescued some pieces from a tip, made some new pieces with help from my father, and added colour by painting tiles ourselves.

TABLE OF MAJOR COSTS

Groundwork (including rainwater harvester)	26,862
Walls (blocks, internal and labour)	21,175
Roof (beams, velux windows, tiles, insulation, zinc on dormers, labour)	30,931
Building supplies misc.	15,103
Doors, windows and stairs	18,545
Interior flooring	1,378
Interior doors	2,990
Kitchen	5,152
Stove and chimney	3,212
Render	3,000
Plastering	7,500
Carpentry	5,053
Electrical	6,000
Plumbing	12,704
Decorating and tiling	5,353
Total	£ 164,958



GOLDEN RULES

We developed some golden rules during the build: we would choose environmentally-friendly products over visual looks; we could not buy anything for the house without mutual agreement; we would worry more about cost than time taken to complete things; local suppliers and workforce were best; just because it was not the conventional way of doing things did not mean it would not work.



Above:
A light and airy bedroom in the eaves.

Centre:
Looking down the central lightwell into the dining room below.



Below:
The rich colour scheme lends a warm, comfortable feel to the living room.



We struggled, at times, to communicate to others what we meant by 'eco': It took a while for my dad to understand reclaimed, native, or FSC wood and eco-varnish; the plumbers questioned what our washing would turn out like if we used rainwater; and the painters objected to using Osmo and ECOS paint. Early on we met plenty of patronising builders who advised us to 'forget all that eco-stuff' and raised eyebrows when they understood we were two women building a house. But with a highly supportive eco-architect (Andrew Yeats of EcoArc) and a knowledgeable project manager willing to engage with eco-ideas, we eventually found suppliers and stockists of the things we needed.

My partner, friends and family were invaluable in helping us complete the build – with seemingly endless shelving to put up, a woodshed to build, furniture to strip, and garden paths to lay. Since moving in, a local carpenter has agreed to drop off his off-cuts which we use to supplement our homemade newspaper logs and purchased logs for the wood stove, and a neighbour has offered us free seedlings for our garden. Our house has started all sorts of conversations and we have often invited in passers by who have

stopped to ask us questions.

At times we have to remind ourselves why we made certain compromises (often due to a lack of money or plot space) and get frustrated that we do not yet generate our own electricity. Now the project is almost complete we have the confidence in our choices to wonder if we couldn't have been bolder in some of our earlier decisions.

Externally the house has a big visual impact on the landscape, ironically a result of the planning permission which stipulated that it replicate the look of the previous house demolished by Network Rail. We have tried to mitigate this impact by covering the lower external walls with red cedar cladding and choosing a dark slate-effect roof (using Ardesia recycled tyre roofing), but we could have been more radical in our design. We now have the confidence to follow our gut instincts and compromise less in our search for environmental solutions. We only hope that our house will inspire others to follow their dreams too 🌱

Jenny Pickerill is a lecturer at the University of Leicester and has been working with the Low Impact Development group, Lammas for the last two years: www.lammas.org.uk