



# A grand design

Architect Elspeth Beard captured the imagination of millions when she appeared on Channel Four's 'Grand Designs'. We continue her story and visit the converted, Victorian water tower she turned into her stylish home.

PICTURES BY BRUCE HENNING

## READERS' PROFILE

**Name** Elspeth Beard  
**Region** Surrey  
**Style of Property** Victorian water tower  
**Size** 5,000 sq ft  
**Land and Property Cost** £121,000  
**Conversion Cost** £100,000  
**Total Cost** £221,000  
**Cost per square ft** £44  
**Build time** 6 years  
**Verdict** 'an amazing space to live in'

**Y**ou'd be hard pushed to find a better example of someone practicing what they preach than Elspeth Beard. As an architect, her own home is a marvel.

Elspeth recently appeared in an episode of Channel Four's Grand Designs, in which she designed a wonderful modern interior for an ancient barn. However, her greatest achievement yet is probably her own home. Located in the Surrey countryside, it is a 140ft red-brick Victorian water tower that dominates the skyline.

Now restored to its former glory, the exterior of the building is magnificent. Octagonal in shape, with a diameter of 40ft at the base, the tower tapers gradually over the next 100ft before buttressing outwards to accommodate the tank.

Decommissioned by the local water authority in 1970, Elspeth bought the tower at auction in October 1988 for £121,000. At this time the building was in an appalling state of repair and Elspeth herself was not fully qualified.

In the spring of 1990 Elspeth finally began the building work. She had decided that as well as designing and planning the conversion work, she also wanted to be as hands-on as possible with the manual labour.

The first jobs that had to be done were probably the most unpleasant of the whole project. Elspeth said: "To begin with I had to get rid of all the piping in the tower and cut away the sides of the water tank with an angle grinder." But, before she could do that, there was the small matter of removing a 2ft thick layer of bird droppings from the bottom of the tank. Elspeth had to shovel this into sacks and carry it down to a skip 100ft below the tank at ground level. ▶



**Left:** The Victorian tower stands tall and proud in the Surrey countryside. A symbol of Elspeth's amazing achievement.  
**Right:** The impressive entrance hall is stylishly furnished.  
**Below:** A feature spiral staircase links the fourth, fifth and sixth floors.





**Left:** A steel frame supports the gallery which surrounds the lounge. This is one of the many unique elements that has been incorporated into the tower.  
**Right:** The bedrooms are situated on floors one, two and three, each with their own mezzanine.  
**Below:** The tower and Elspeth's impressive furniture work in harmony together.

The next major goal was to make the whole structure watertight. This involved mending and re-screeding the roof (which leaked like a sieve) and incorporating a central glass lantern to draw extra light into the living room. It also meant replacing all of the tower's 62 windows and re-pointing 50 percent of the exterior brickwork as well as repairing two huge stress fractures running up opposite sides of the tower. These had to be 're-stitched' with new brick.

All of this meant scaffolding the entire exterior of the structure – looking back, Elspeth believes this initial work set the tone for the whole project. "There was nothing standard about this place," she says. "Everyone who came to work here always ended up taking three or four times longer than they originally expected."

To take two examples, the company who said it would take a week to erect the scaffolding took a month and the building company who had quoted six weeks for the re-pointing finished the work nine months later! In all, it took three years to make the whole structure watertight.

Elspeth now turned her attention to the interior of the building. Elspeth said: "I wanted everything that was obviously new in the building to look modern so you could clearly see what was original."

The first part of this process was to construct a new internal, steel frame within the tower. This would support not only the new floors but also a staircase which would run between the ground floor and the fourth floor. Elspeth had planned for a separate spiral staircase to link to fourth, fifth and sixth floors. The steel frame would also support a gallery that would be built above and around the living room, and the raised mezzanine areas in each of the three bedrooms. The mezzanines were conceived by Elspeth as a way to create ensuite bathrooms on floors one, two and three where the bedrooms would be. This unusual idea meant the floors wouldn't have to be formally divided with stud walling. Instead the mezzanines would keep the space open and the three-sided internal platforms create a unique area for a free-standing bath, sink and lavatory.



A major challenge for Elspeth's contractors was to reinforce the large supporting beams that held the tower's flat concrete roof. Years of sitting below standing water had rusted them and they needed reinforcing before the upper floors of the tower could be turned into living space. The solution was to install new 'fish belly' steels to provide extra strength. As a bonus, they also made a very attractive architectural feature. ▶





With the gift of hindsight, Elspeth realises that what she did next was probably a mistake. "I decided to move in," she says. "The floors were in but not completed and there was no kitchen, but I did have a toilet on the ground floor."

To complicate matters further Elspeth now had a two-month old baby, Tom, to look after. "I'd become a mother, moved house and I was living in a building site while commuting to London. I can't believe I did it – I think I was a bit obsessed at that point!"

Over the next year, Elspeth concentrated on getting the central heating system and bathrooms installed. This meant getting a mains gas supply laid up to the tower, which involved digging up half a mile of road. Keen to take an active, hands-on role, Elspeth tackled most of the first fix plumbing and electrical work herself, chasing wiring up the tower's internal walls and installing the soil and waste pipes.

**Above:** The mezzanines in the three bedrooms serve as ensuite bathrooms with a free-standing bath, toilet and basin.

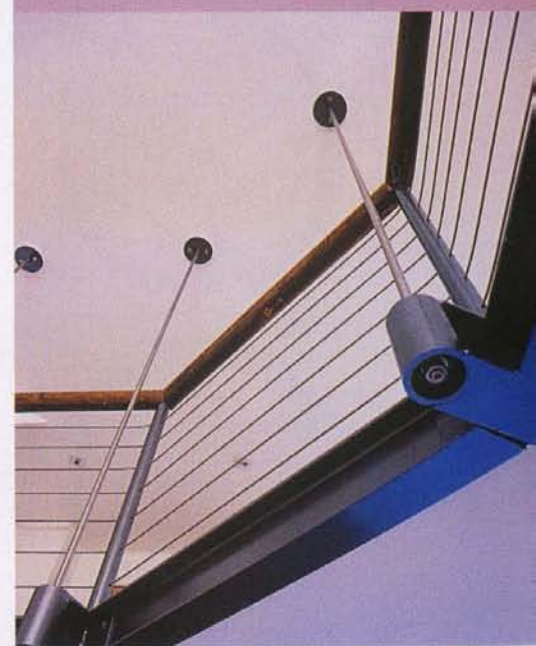
**Right top:** The bottom of the water tank was sand-balsted and lacquered to create a stunning ceiling for the kitchen.

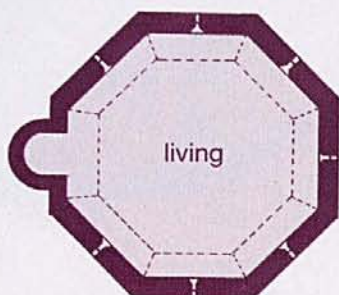
**Right middle:** Elspeth incorporated different styles of stairs within the tower.

**Right bottom:** The tower is a unique blend of Victorian architecture and contemporary styling.

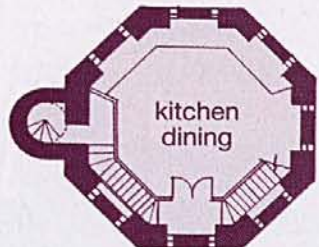
Elspeth also had to consider that the building was Grade II Listed – she wasn't even allowed to attach external drainpipe and rainwater run-offs had to be channelled internally. Fortunately for Elspeth, there was no problem with water pressure, despite the height of the tower. In a worse case scenario water may have had to be pumped to the top of tower "I think we must be first off the tee from the reservoir!" she said.

One thing Elspeth wishes she had done sooner was hang the fire doors dividing the floors of the building. In retrospect this should have been done immediately after the 'one hour' fire walls partitioning the stairwell from the rooms on each floor had been erected. "I really should have thought of that because the dust wouldn't have travelled so much around the tower." It's easy to think about these things on reflection but quite a different with the reality of managing a build. ▶

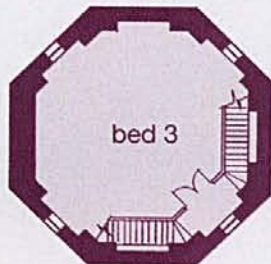




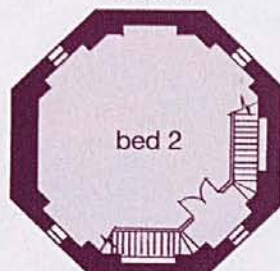
5th floor



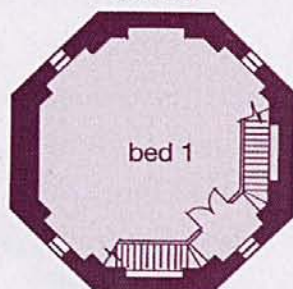
4th floor



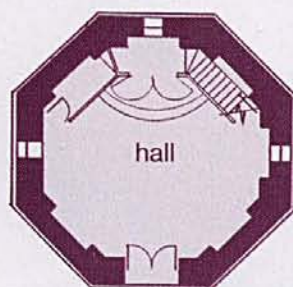
3rd floor



2nd floor



1st floor



ground floor



**BUILD COSTS**

- Scaffolding hire £10,000
- Roof construction and repair £5,000
- Re-pointing and re-stitching brickwork £7,000
- Windows £15,000
- Steelwork £25,000
- Plumbing and drainage £5,000
- Gas mains connection £1,500
- Bathroom fittings £4,000
- Kitchen £8,000
- Fire doors £2,500
- Maplewood flooring £12 per sq m

Over the next few years the tower gradually took shape as a family home. Decoration got underway and the kitchen was fitted on the fourth floor. The bottom of the water tank, which Elspeth had kept in situ, was sandblasted and lacquered, creating a magnificent, convex kitchen ceiling. Elspeth laid maple stripwood flooring throughout the kitchen and bedrooms. At this point all the hard work started to pay off and Elspeth saw her magnificent dream-home come to life.

Looking back, Elspeth admits that it was naivety and her almost literal 'onward and upwards' determination that got her through those difficult early years. However, the experience she gained through the duration of the project has proved invaluable in her work with self-builders.

Elspeth still adores the building. It stands as a testament to the excellence of Victorian engineering, coupled with the innovations of modern-day architectural design. ■

**USEFUL CONTACTS**

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