THE STORY OF BUILDINGS

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THINK BEFORE YOU BUILD

The Straw Bale House, London, Britain, 2001

From Pharaoh Djoser's tomb at Saqqara to the Pompidou Centre in Paris, people have spent fortunes on buildings, and used all their ingenuity to make them beautiful and strong. Buildings have displayed the might of kings and the wealth of the rich; sometimes they have demonstrated complicated theories; sometimes they have given us a glimpse of heaven. But all buildings start with the questions the first builders had to ask when they looked round the forest, wondering how to find shelter. What do we want the building for? And what materials have we got to make it from?

Today we need to ask some new questions as well.

People in the past didn't stop to think when they cut down trees to make a house: the forests stretched for thousands of miles. They didn't have to worry about running out of stone or clay, while lighting a fire to bake bricks hardly made a stain in the blue, empty air. It seemed as if there would be enough materials to last for ever, and no amount of fires would damage the sky. But these days the earth doesn't seem so strong. Cities grow larger and larger, while people cut down forests faster than the trees can grow. All over the world, factories roll steel beams and giant machines crush cement. The new houses we build need energy to heat and light them, so boilers devour gas and pylons stretch across the countryside. Every city on earth burns with a million electric lights.

Today we have to learn to make buildings that harm the earth less.

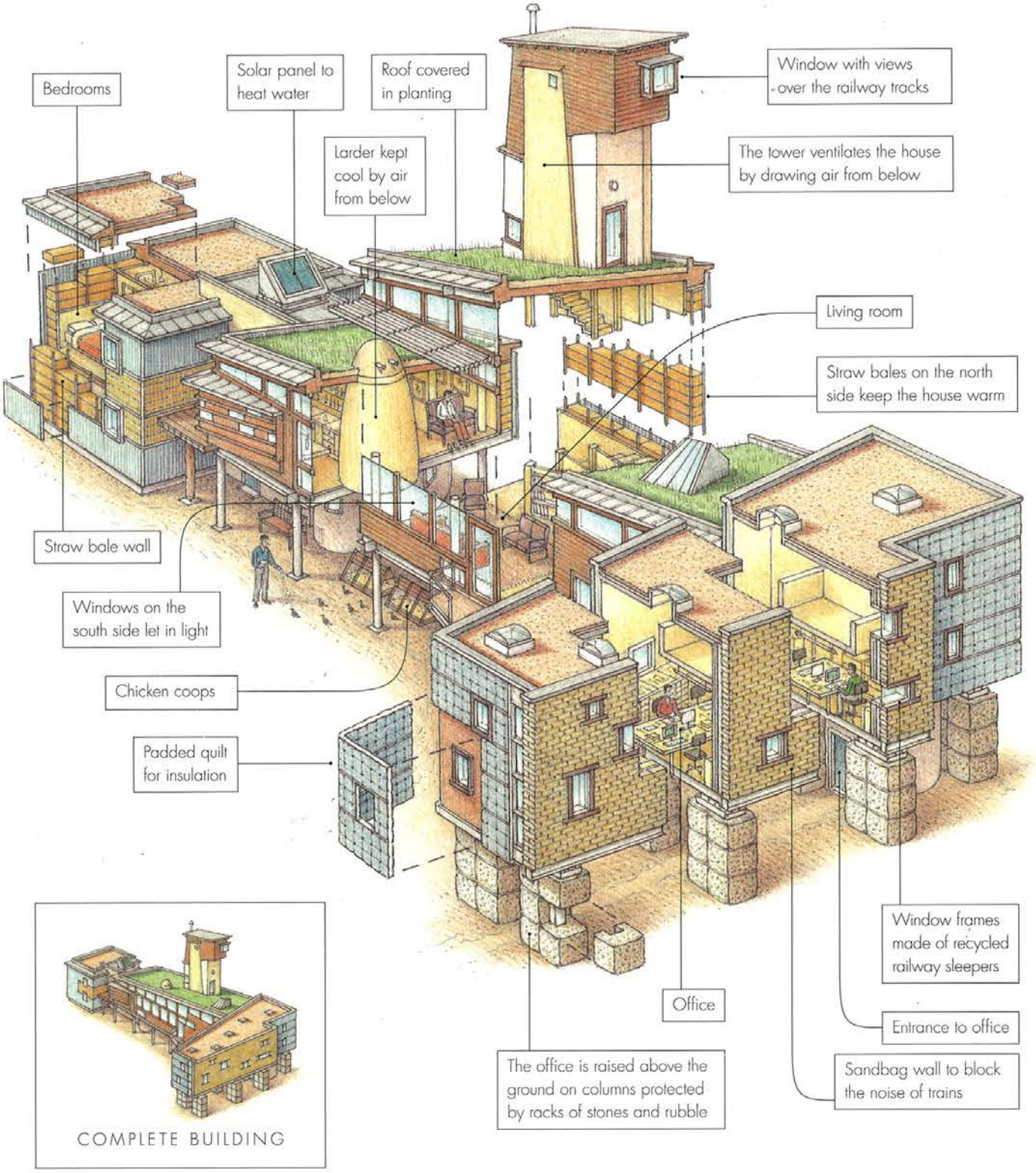
Sarah Wigglesworth and her partner, Jeremy Till, were architects who needed a home and a place to work. First they had to find somewhere to build it, so they searched London until they stumbled on an empty forge near a railway track. Then they started planning their house.

They talked about the houses they had imagined when they were children: of towers where you could sit and dream; of bedrooms so snug you would fall asleep as soon as you lay down. Most of all, they discussed how they could stop the house from using too much energy. They decided to make the south side as open as possible, to take light from the sun, while the walls on the north stayed thick and warm. To take away heat in summer they would build a tower that rose high above the roofs – and the tower would be a place to sit and look out across London. They would build a cool larder instead of having a fridge, gather rain from the roofs to flush their toilets, and leave a big empty space under the house where they could keep chickens and grow vegetables. They didn't cut down the trees in the yard. They wanted to live among them like birds.

When it was time to start building, they gathered rubble in wire baskets to act as foundations and cut up old railway sleepers to make window frames. They shredded old newspapers for insulation to keep the house as warm as possible.

They wanted to make their own bricks, but they didn't have a kiln, so they piled up sandbags to make the wall next to the railway tracks. And they bought straw bales from a farmer and stacked them up as a wall for the bedrooms and kitchen.

When the building was finished it didn't look like anyone else's house, with its tower, sandbags and straw bales, and its roof covered in grass and flowers like a hillside. But Sarah Wigglesworth and Jeremy Till had done what people have been doing ever since they started making buildings. They had built a shelter from the best materials they could find – just as the first people had done in the forests or mountains. And like all the best buildings, their house told a story. It was a story about thinking before you build; about learning how to make homes that don't damage the earth, so that people in the future can go on making buildings and living in them, just as the very first people did when they piled wood against wood to make shelter for the night.


Bedrooms
Solar panel to heat water
Roof covered in planting
Window with views over the railway tracks
Larder kept cool by air from below
The tower ventilates the house by drawing air from below
Living room
Straw bales on the north side keep the house warm
Straw bale wall
Windows on the south side let in light
Chicken coops
Padded quilt for insulation
Window frames made of recycled railway sleepers
Office
Entrance to office
The office is raised above the ground on columns protected by racks of stones and rubble
Sandbag wall to block the noise of trains
COMPLETE BUILDING