



# BACK

## *To the Future*

Building what is probably the first new full cruck dwelling for three hundred years in the form of an oak barn, partially roofing it with turf and joining it to another barn structure — all overlooking a beautiful Devon river — must be the ultimate 'bungalow eating' experience.

PICTURES BY NICK MEERS. WORDS BY DEBBIE JEFFERY.

In the August issue of *IH* we looked at the concept of building traditional, green oak barns as an obvious alternative to renovating existing farm buildings, and discussed the growing trend of 'bungalow eating'. This involves purchasing a site on which an often ugly building already stands in order to help gain planning permission for a new house to replace it.

The Burlingham family took up the challenge and built a home which is both inspirational and practical. In Diana Burlingham's words, "it fulfils the three R's: rugged, rigorous and rural, and has generated a lot of positive interest — even from that most famous carbuncle-hater of them all, Prince Charles."

The family had previously lived abroad a great deal and enjoyed a variety of different lifestyles and living spaces, collecting ideas from around the

world as they travelled. Their aim was to bring together the best parts of their previous houses into one home, where they could finally put down roots.

"When we returned to this country we lived in a modern house in Gloucestershire, to which we added a green oak

balcony which is the norm in countries such as Scandinavia and Greece," Tony explains. "We have always enjoyed living half in and half out of the house, and therefore a deck was something we felt we couldn't do without."

The family was not prepared to compromise by purchasing an old house with small windows, as plenty of light and space had become vital criteria after their time abroad. When the great storm of 1987 increased the availability and therefore reduced the price of oak, they decided to invest in a quantity of wood before they had found a site or knew what they would build.

"The idea of creating a barn-style home was one which we had discussed before," Diana recalls, "so we stored the oak at a sawmill in Cirencester and visited it every year when we bought



The turf roof of the barn blends seamlessly into the surrounding banks.

The roofscape is regarded as particularly important and presents a dramatic broken roof line, punctuated by three glazed lanterns, chimneys, dormers and varying ridge heights, enabling the house to fit less obtrusively into its rural setting.





**In progress: the massive, skeletal oak frame. Following the storms of 1987, the Burlinghams bought a quantity of oak at a reduced price. They stored it at a sawmill and visited it once a year when buying the family Christmas tree.**

our Christmas tree." The scrapbook she has put together marks the stages of the project and begins with a lurid photograph of the wood itself, covered in fungi.

In July 1989, Roderick James of Carpenter Oak & Woodland Co. directed them to a two acre site which, although somewhat exposed, is absolutely outstanding in both its views and privacy. The site already possessed a sitting tenant in the form of an asbestos bungalow which had been erected circa 1940. Two sets of plans had been accepted for bungalows and the Burlinghams now acknowledge that they might well have been forced to build one of them. They put some of their more outrageous designs on the back-burner and opted for what they felt to be a compromise.

It was at this point that they decided to take the plunge. They realised that by building an oak barn with full crucks they would be undertaking an extremely difficult project and one which might create a number of problems. They also knew that this would probably be the first such building to be erected in this country for approximately three hundred years.

It is a decision that has since earned much praise. Prince Charles happened to see some pictures of the house and greatly approved. The building has a classical feel yet is new and exciting and the Prince is notoriously averse to the conversion of old barns because their personality is often lost in the process.

By proposing to excavate to a depth of nearly five metres to match the ridge height of the original bungalow they hoped that no-one would notice the increased size of the property; 3,500 square feet as opposed to the modest 700 square feet of its predecessor.

Eventually, after much haggling, planning permission was granted and work began. The Burlingham's children spent a wonderful day wrecking the bungalow before a digger came along and flattened it. The site is

now a grave to an asbestos monstrosity which was well and truly 'eaten'.

The digging down allowed the building to become two storeys — a bungalow on sticks — and this made the family decide to position the Douglas fir barn overlooking the river to make the most of the views.

The heavy frame was designed both to contrast with and complement the oak; it is a more informal structure created to house the building's bedrooms, bathrooms and storage areas.

The kitchen is also built from Douglas fir and joins the two barns at right angles. It has dramatic, sloping glass windows glazed with low emissivity K glass, the better to take advantage of the stunning vista across the river.

"We knew that we couldn't opt for two oak barns because of the expense," Diana explains, "but the feeling of each building is so different: the oak is rough, unsymmetrical and honey-coloured (the shape of the wind-braces is a humorous touch), whereas the Douglas fir barn is all straight lines — strictly functional and utilitarian."

But it is still the great oak barn which attracts the most attention: the crucks in the frame rise from floor level up twenty feet to form the apex of a fifty foot long roof. A huge fireplace presiding over one end of the barn increases its likeness



to a typical, fifteenth century English hall house.

To build such a structure from scratch proved to be a challenging task for Carpenter Oak & Woodland. In the firm's yard, near Chippenham, the massive timbers for

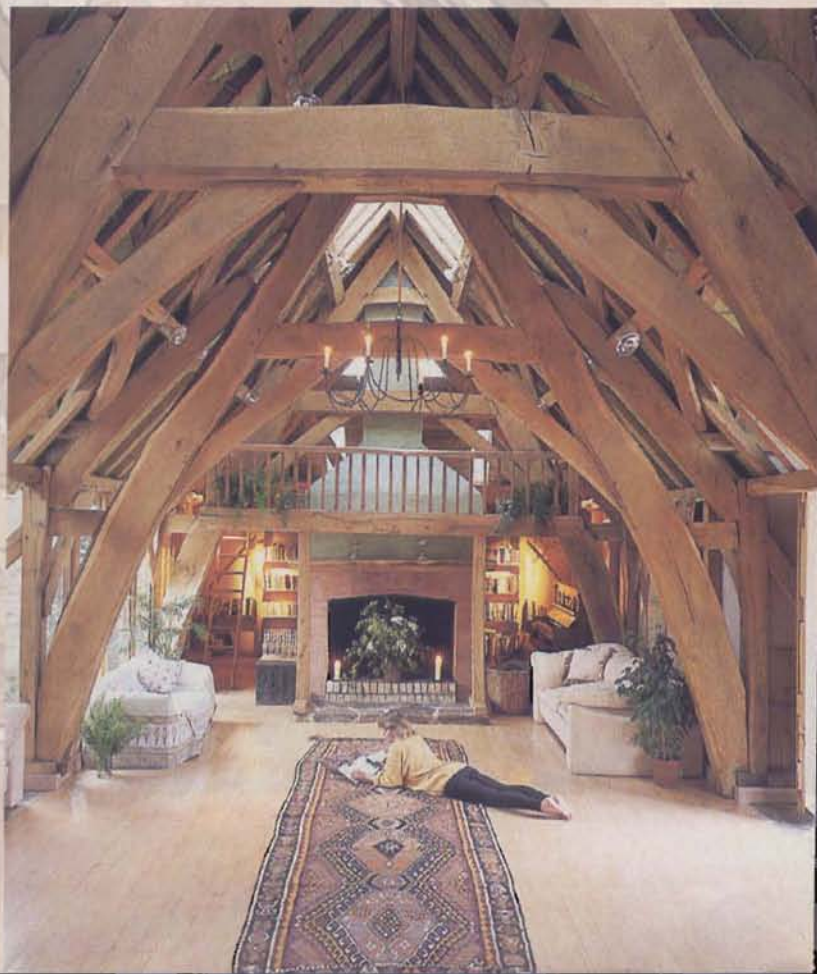




**ABOVE:** The three lantern lights in the roof were a last minute addition designed to allow in natural light from all angles.

**LEFT:** The matching pairs of curved main timbers joined to an A frame creates the impression of a vast upturned boat. Diana spent hours painting the floor with thirteen coats of oil varnish, and a sprinkling of gold powder to reflect the light.

**FAR LEFT, DETAILS:** The oak utilised in the main barn was obtained after the great storm. Carpenter Oak uses traditional Mediaeval jointing techniques with oak pegs and combines these with high levels of insulation, sealed double glazed units and high performance fittings.



**BELOW:** The kitchen is the main living area of the house — its table came from New Zealand, made from an 850 year old tree cut for masts. The floor to ceiling windows make the kitchen feel like an outdoor room or conservatory.

**BOTTOM:** The Douglas fir barn contains the bedrooms and bathroom with a staircase leading down to a further bathroom and storage areas.



the crucks were sawn and the frame was designed and prepared. The man in charge of the project, Charles Brentnall, had only previously cut and installed a single cruck, and had no-one to ask for help with the setting out.

The carpenter must select an oak with a curve in its trunk that matches the roof pitch and then saw that curve. Accuracy is of paramount importance; it could take months to replace a piece of timber. It is not surprising, therefore, that the use of full crucks in domestic dwellings was discontinued in about 1700.

"By putting in the full crucks we limited the use of the oak barn because it's impossible to have a full second floor — the crucks intrude into the space too much," explains Tony.

Balconies at each end of the oak barn create sleeping and reading platforms, and these also feature in the bedrooms which are cabin-like and cosy. The family is very happy with this arrangement and prefers the large living areas; the oak barn alone is 48 by 18 feet.

This cruck framed section has been set into the hill. It is partially earth sheltered and roofed over with five layers of turf. "We enjoyed living under a turf roof in northern Canada — it is like being underground and has good thermal properties," Diana

notes. This southerly sunken end of the house blends seamlessly with the adjoining hedgerow, that the building appears to grow out from among the surrounding banks.

The rest of the steeply pitched roof features red ridge tiles and is clad in thick, second-hand Italian labole slates laid in diminishing courses and fixed with copper nails. The ground floor walls are constructed in two skins: inner of breeze blocks and outer consisting of stone cut from the excavation with rubble joints above ground level. There are plans afoot for the gap between the two walls: the conditions make it an ideal location for a wine cellar.

The family have involved themselves totally from the beginning of the project. Along with their strong feeling of satisfaction, they are justifiably proud of their achievement. Tony completed much of the carpentry himself and built the balconies, ladders and stairs as well as installing the glazing. Diana installed the roof, hand sorted, graded and numbered twenty tons of roof slates and undertook a number of the other small jobs that often get overlooked on a project of this size.

The building work was dependent on funds from the sale of two houses and this meant that



**ABOVE:** A reclaimed bath and home-made towel rail make interesting features in the downstairs bathroom.



**LEFT:** The master bedroom benefits from a hand decorated working fireplace covered with a chainmail firescreen as seen in Canada.

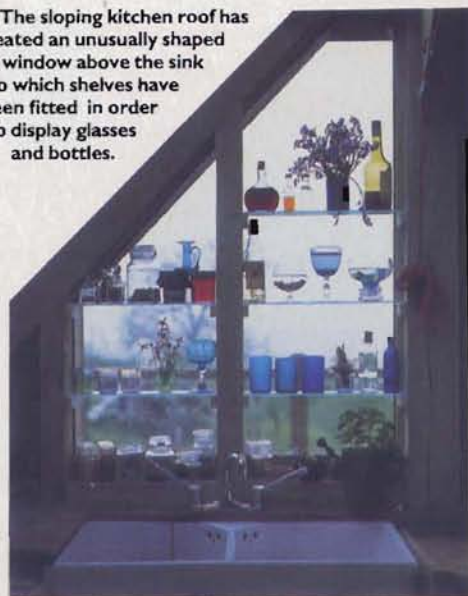
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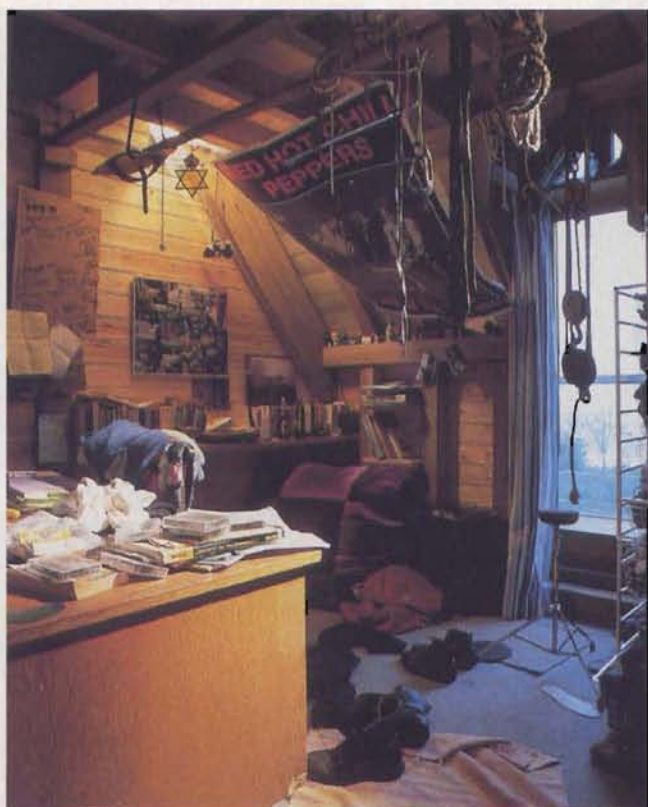
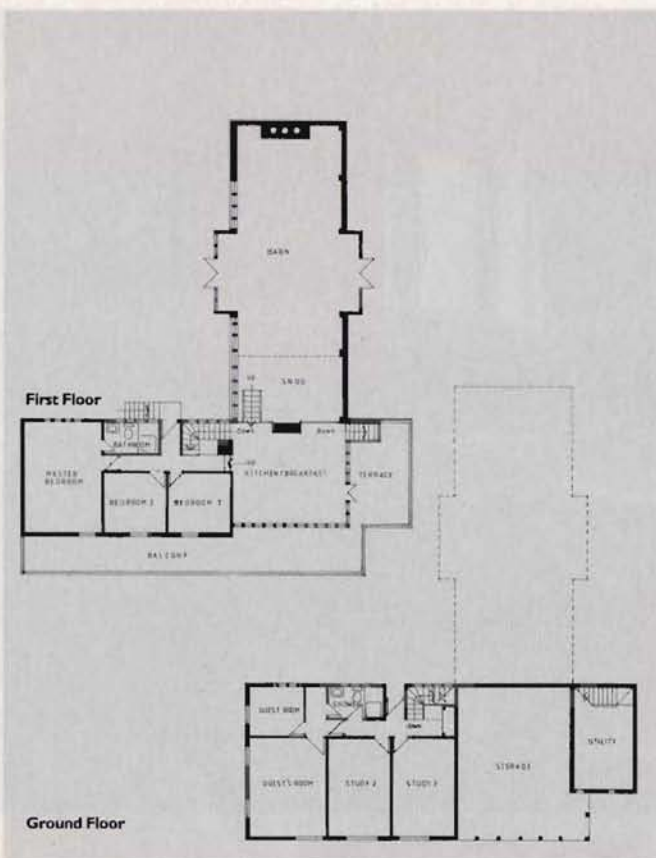
Name: **Tony & Diana Burlingham**  
 Professions: **Anaesthetist**  
 Designer: **Architect & selves**  
 Construction: **Clad oak & Douglas fir frames**  
 House type: **Four bedroom detached**  
 Size: **3,550 ft<sup>2</sup>**  
 Build route: **Builders contracted by architect**  
 Build time: **Two years**

Build cost: **£260,000**  
 Cost per ft<sup>2</sup>: **£135**  
 Land cost: **£220,000**

Total build cost: **£480,000**  
 Current value: **£750,000**

The sloping kitchen roof has created an unusually shaped small window above the sink into which shelves have been fitted in order to display glasses and bottles.





The bedrooms are cosy and cabin-like, with sleeping platforms above and doors leading out onto the deck.

the project could not be finished until the second house had been sold. After living in a small caravan on site the family eventually moved into the Douglas fir barn and left the oak frame covered and unfinished until they could afford to complete it. Diana still dreams of the sound of plastic sheeting blowing in the wind.

The building reflects the Burlinghams' initial requirements for the extensive use of wood, high levels of energy effi-

ciency, insulation and, above all, fun. The main barn is available for a variety of functions and has been clad in tribal rugs and artifacts for an exhibition and has housed numerous people for elaborate meals. "Trying to use the barn to its full potential has become a full time occupation," Diana jokes.

The bungalow eating trend is gaining momentum. Just down the road in Dartington, another family has demolished a bungal-

low to make way for a new oak barn construction. John and Chris Alton and their two sons are in the process of building their own barnhouse. Inspired by a picture in a magazine, they demolished their dilapidated 1920s bungalow and undertook their first self-build project: a modestly sized, four bedroom house which is nearing completion and which, when finished, will also be a huge improvement on the building it replaces. ■

## USEFUL CONTACTS

**Turf Roof**  
Peter Mayes, Nordic Design  
0626 55817

**Tiled Roof**  
Brophy Roofing 0803 292988

**Underfloor Heating**  
Wirubo (UK) 0293 548512

**Oak frame**  
Carpenter Oak & Woodland  
0225 743089

