



Quarterly Journal of Forestry

Official Publication of The Royal Forestry Society

July 2013 Vol 107 No. 3

Promoting the wise
management
of trees and woods



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FOREST VILLAGE

A DEVELOPMENT CONCEPT

Increasing pressure for housing growth has made **Matt Wood** wonder if there is a way of providing housing without compromising the countryside. He asks: is there a way that we can have houses *and* trees?

The publication of the final report of the Independent Panel on Forestry earlier this year reminded me of a ‘think-piece’ about building in forests which I wrote way back in 2007. ‘Forest Village’ addressed some ideas about large-scale housing development within existing or new forest, exploring issues of sustainability, lifestyle and development economics which the notion of building houses amongst trees threw up.

The initial thoughts and sketches caught the imagination of Yolande Barnes, Director of Residential Research at Savills, and during 2008 and 2009 we presented ‘Forest Village’ to a number of major land-owners including the Crown Estate, The Duchy of Cornwall and the Forestry Commission. The Forestry Commission were interested and supportive...of which more later.

Houses and Trees

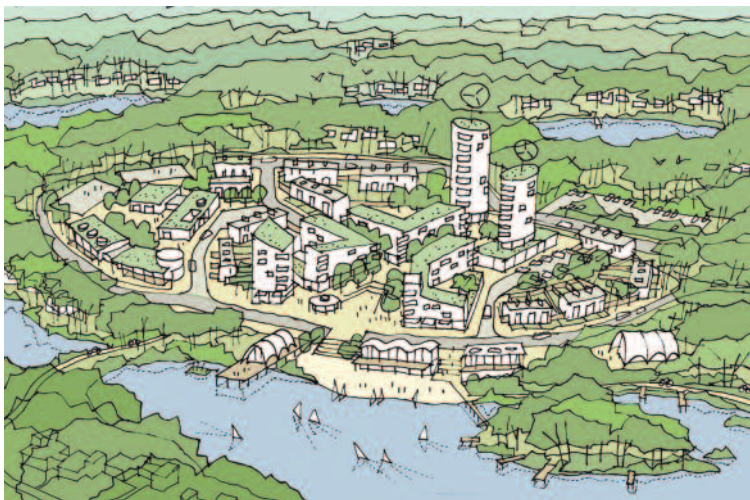
I was prompted to write down my first thoughts about Forest Village after reading another thought-experiment about houses and trees, by Mischa Balen, then of the Adam Smith Institute. The article ran in *Planning in London Magazine* and put forward a neat bit of lateral thinking about how to build lots of houses in the countryside without ‘concreting it over’.

The idea was simple: grant planning permission for 3% of the UK’s 225,000 farms to develop 5% of their land for housing, on the proviso that the remaining

95% of each of those farms was planted with new woodland. According to Balen’s calculations, this simple policy would create land for 950,000 new homes along with 130,000 hectares of new woodland – a hefty 11% increase in the UK’s woodland cover. And as an added bonus, none of those new houses would be visible from any existing homes – they would be in nobody’s ‘back yard’. I found the idea very striking: development and green space, not instead of it. Houses *and* trees.

But there was a problem: national strategic planning policy (now as much as then) is essentially urban, favouring larger scale development, planned at relatively high density around existing or new service-centres, to reduce dependence on the private car for accessing schools, shops and healthcare facilities.

The average size of development delivered under Balen’s plan would be around 140 houses,



Forest Village – the concept.



The real Forest Village?

too small a hamlet to sustain any services of its own, and most of them would be remote from existing settlements. Under any planning regime which remained pro-urban and anti-car, Balen's elegant and surprising idea was pretty much a non-starter.

But it left me thinking whether there was a more sustainable way in which houses and trees could co-exist – in a larger, more self-contained Forest Village.

The Concept

When the Forest Village concept was set out on paper, the accepted ideal minimum size for a new settlement or urban extension was around 2,000-3,000 homes – large enough to sustain a useful hub of local services, including a primary school and some local shops.

As in Mischa Balen's piece we asked whether these homes could be 'hidden' inside some woodland, so as to reduce their impact on open countryside, but we imagined that development should take place within the woodland (losing as few trees as possible), rather than replacing some of it; houses *and* trees. And if the woodland was initially of low habitat-quality – such as single-species commercial plantation – then the act of repairing and enhancing the forest with new planting as part of the development process, and its improved management going forward as a recreational asset for the new settlement, might actually improve its biodiversity and habitat value. For this to be achieved, the new homes and their associated roads and landscaping should occupy as small a footprint in the forest

as possible. Perhaps the forest as a community open-space could obviate the need for land-hungry private gardens, allowing the forest canopy to maintain its almost continuous cover across the new village.

This would also allow the new settlement to be kept reasonably compact. Forest Village would have nothing like the density of a modern housing estate, but it was vital that all the homes should be within easy reach of the central hub of services, on foot or by bike. The circulation network of the development would be planned from the outset to prioritise cycles and pedestrians over cars.

In short we had imagined a low-density self-contained new settlement, planned for pedestrians and bicycles, in which residents could live surrounded by the trees, plants and wildlife of their own forest – a forest which the process of development had not only retained but actually improved. Could a place like that really exist?

Well, it already does...It's called Center Parcs.

The Real 'Forest Village'

My readership will now have split into two groups. If you have been to Center Parcs, you will immediately understand what I'm driving at. If not, the idea will sound absurd: you probably think of Center Parcs as a glorified Butlins, with trees...and in one sense that's fair.

The Center Parcs I know – at Elveden in Thetford Forest – follows a familiar format: hundreds of 'villas' are laid out around a 'village centre' comprising a huge indoor swimming 'oasis', vast sports halls, a bowling alley, bars and disco, a super-market and gift-shops plus a selection of eateries. The current business model relies on customers staying (and spending) on site for their entire holiday, a weather-proof yet hermetic 'stay-cation', the idea of which will be very off-putting for many: the Butlins-effect, if you will.

However, away from the Sky Sports bar and the fast-food joints Center Parcs offers more simple pleasures: sunlight glancing through trees, leaves rustling in the breeze, a squirrel bouncing past, or a Muntjac deer stepping

silently through the undergrowth just outside your bedroom window. And because the site is free of cars apart from take-over days, ‘commuting’ to and from the village centre is mostly by bike.

With kids of the right age we have enjoyed many long weekends at the Elveden site over the years, and found its Sylvanian pleasures genuinely attractive. So in fact Mischa Balen’s article was only the prompt to write down and expand a notion that crossed my mind each time one of these relaxing weekends drew to a close: ‘What if I could actually live somewhere like this? Could a new town be like Center Parcs?’

Sustainable Development?

As a model for the development of a new settlement, Center Parcs offers a really powerful proposition. Most green-field development replaces open green-space with houses. In a Center Parcs they depend on each other. The forest is regarded as an asset to the finished site, so great care is taken to protect and enhance it during development.

In fact because most Center Parcs sites start out as commercially managed softwood plantation, the process of development actually improves their biodiversity. Some trees are felled during construction, but replacement planting is mostly broad-leaved; species-mix and resulting habitat-value are improved by the process of development. At Elveden, the irregular rings of villas were built from behind, using temporary routes for heavy construction-traffic. After construction these routes were re-modelled to become rings of narrow lakes, providing brand new habitat for water-birds.

Purists would argue that that the resulting woodland is an artificial environment, that it is ‘suburbanised’ forest. This is probably a fair comment, but almost all of the UK’s landscape is manipulated or maintained in one way or another. And for the purposes of this thought-experiment Elveden represents an amazing double-whammy: the

best part of a thousand new ‘homes’ built in 160 hectares of woodland, which is actually improved by the process of development, rather than destroyed by it. Houses *and* trees.

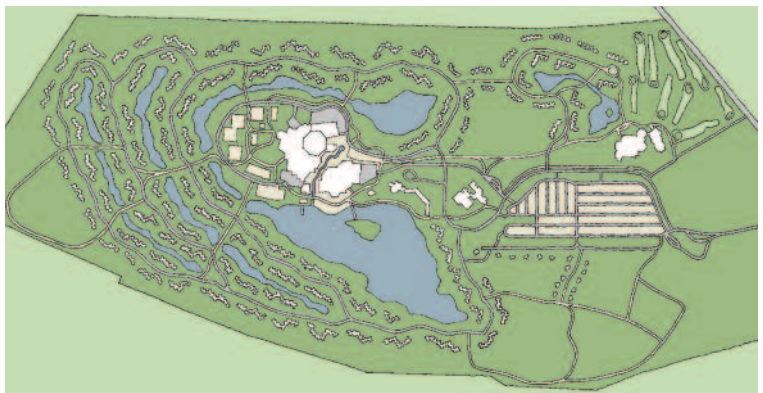
Could this approach be applied to the creation of a new settlement? How could one turn a Center Parcs into a ‘real’ village?

A Hypothetical Retro-Fit

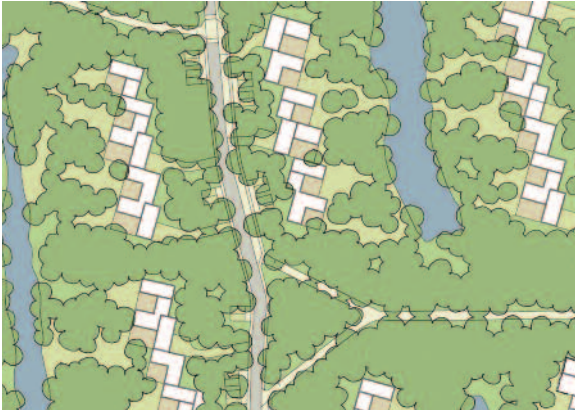
For the purposes of our thought-experiment the aim would be to change as little as possible, preserving the essential quality which could make Forest Village such an attractive and unusual place to live.

Firstly, most of the leisure facilities of the ‘village centre’ would be replaced by community facilities – a primary school, a convenience store and one or two other small shops, a medical centre, a café perhaps and a community hall. Some of the outdoor sports pitches would remain, adjacent to the school, and perhaps there is room in a new village like this for a sports club with a small pool. The lake with its artificial beach and dinghy-club remains, and the village with its cycle-paths and forest walks will be an attractive place for walkers and joggers to visit at the weekend.

The remaining space in the village centre is taken up with terraced houses and apartments suitable for older residents and younger people; two small residential towers are shown, giving some amazing views into and over the treetops. The townhouses and apartment helps to raise the overall density of the village to the target 1,500 homes, whilst allowing the forest ‘suburb’ to



The layout at Center Parcs, Elveden.



Typical development density at Elveden.

retain its essential character of houses set in a continuous forest.

Elveden's terraces of holiday 'villas' are rather ingenious. Their serrated footprint neatly separates the front doors and creates surprisingly secluded patios to the rear, all without any private gardens or fences. There are no gardens in Forest Village – just the forest. One could easily imagine the existing 'villas' becoming family homes in our retro-fit, without any modification, but being an architect I couldn't resist sketching out some new types (see below). They are terraced and keep a serrated plan form, but the patio is now enclosed, giving a small fully private courtyard. The living room is arranged to open onto this courtyard, but it also has views directly out into the forest – in hope and expectation of that 'Muntjac moment'! We

have also imagined occasional two-storey elements which could also give access to roof terraces.

What's the Catch?

So far, Forest Village is the product of an end-of-holiday moment of wistfulness: 'This is lovely; wouldn't it be nice to live here all the time?' But like all such pipe-dreams, it's worth taking a minute to be critical. It was clear to me what the attractive qualities of Forest Village would be, but what barriers would it have to overcome if it were to move from thought-experiment to reality?

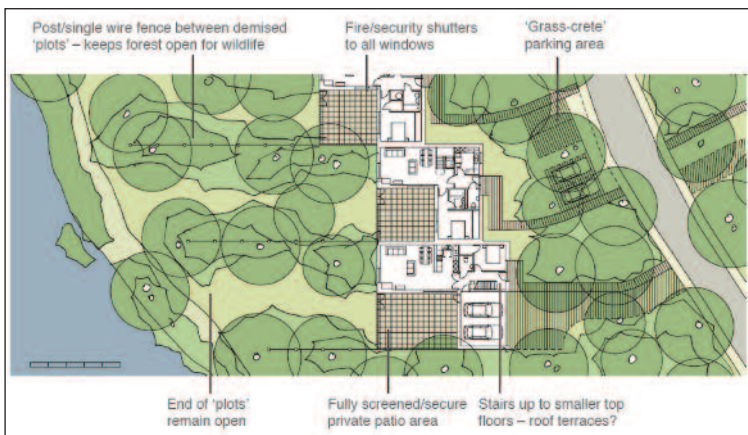
Well, the first question was obvious and basic: 'Is it just me?' Would I be the only one queuing up for the first release of new homes in Forest Village? Would anyone else be happy to live so close to nature, all year round? One man's wildlife is another's creepy-crawlies. A straw-poll of friends and acquaintances suggested the idea was at least worth pursuing, but there are more difficult questions to answer.

What about night-time atmosphere and security? Separating pedestrians and cyclists from cars makes getting around Centre Parcs by day a real pleasure, but how comfortable are people out in the forest after dark?

And what about the potential for forest-fire? CenterParcs have never had a serious blaze – with the notable and ironic exception of the destruction by fire in 2002 of the swimming-oasis at Elveden! Good management of a forest

can keep its fire-load down, but CenterParcs still has to enforce barbeque bans in spells of extreme dry weather. Would residents of Forest Village accept this constraint? And what would it be like living in a forest which had suffered a flash-fire through the canopy, even if fire-shutters on the windows of the new homes had done their job?

In short, how big a selling-point would living in a forest actually be, and to what extent would these negative aspects of life in a real Forest Village



How a similar footprint might be adapted as permanent homes.

counteract it. The sum of these factors would give a measure of how desirable (or otherwise) a property in Forest Village would be and therefore how valuable...which leads to the next really basic question about Forest Village: would it 'stack up'?

Show Me The Money

Technically speaking, Forest Village could be built – Center Parcs has demonstrated that – but it would certainly be more expensive to build than a normal housing estate. Center Parcs covers the cost from a finely tuned holiday and leisure operation. Forest Village would have to pay for itself off residential values.

Estimating those values would be difficult for such an unusual product, but even an assumption that the values would have to be heavily discounted was not an immediate show-stopper. Although Forest Village would be more expensive to build than a normal housing estate, the land it is built on is really cheap. Commercially managed forest might be worth £3,000–4,000 per hectare compared to arable land-values of perhaps £20,000–30,000 per hectare, and up maybe £1.0–1.5m for prime development land.

Furthermore, Forest Village would necessarily have a very different investment model from a conventional housing estate. Normal housing development is based on freehold sales: the developer buys the land, builds the houses and then sells them off. All that counts is the sales-price minus development costs on the day of sale. At Forest Village the woodland would have to remain in communal ownership and management, so a completely different ownership model would be needed. It was this linked question of ownership and economics that Director of Residential Research Yolande Barnes found most interesting, and she had some clear ideas about how it might work.

Long-term ownership and management of the site would create the opportunity for a different form of funding. Long-term, 'patient equity' investment would be needed alongside more conventional finance. Many now believe this is the way ahead, even for more conventional housing development. Put more simply, the



Getting around away from cars.

economics of Forest Village are far from obvious, but not obviously a non-starter.

It was clear that some meaningful demand-testing would be necessary to establish some likely values for the new homes in a Forest Village, and financial modelling of the development could then follow. But without a specific site in mind carrying out this work, a substantial task in its own right, would be not just be pointless but impossible. Before we figured out how to build Forest Village we would have to know where...

A Crowded Island?

We were looking for 150+ hectares of commercial softwood plantation, with gentle topography and predominantly sandy soil. Obtaining planning consent for such a project would be extremely challenging (to say the least!) so we would prioritise areas of high potential housing-growth. We wouldn't avoid designated greenbelt but we would rule out land covered by other blanket planning designations. And ideally the site would currently be closed to

public access, so there would be no loss of recreational amenity for the public.

We had already had several meetings with the Forestry Commission about Forest Village, and at this first opportunity to actively support our work they were keen to do so. Savills Research were offered access to the FC land-holding database, to which they then applied a series of 'sieves', ruling out land step-by-step according to the constraints imposed. Their first sieve was for sites of 150 hectares or larger which produced the map below.

The major national forests stand out clearly – Kielder, Thetford and the New Forest – but looking more closely at the map one could see that large blocks of forest peppered the map rather widely, including in the south-east. This was encouraging.

Sieves were then applied one-by-one for the following planning-designations:

- National Parks
- Ancient Woodlands
- Sites of Special Scientific Interest
- Special Areas of Conservation
- Areas of Outstanding Natural Beauty
- World Heritage Sites

The effect on the map was dramatic (see right). Apart from Kielder Forest in Northumberland almost all of our orange splodges have disappeared beneath a protective blanket of planning designations. We then took a closer look at southern England, where housing demand would be highest. Zooming in like this made it easier to pick out the remaining individual blocks of orange. Six of these caught our eye...

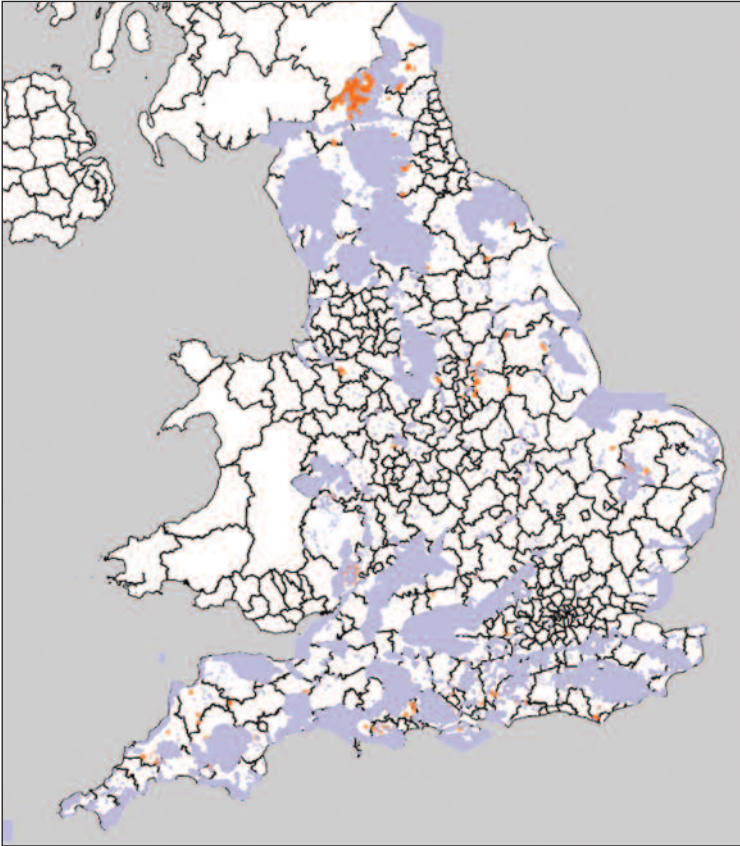
Six of the Best

They were the best candidates identified in our crude initial search, but they weren't all perfect; far from it, in fact. One site had the wrong geology; another was an isolated block of forest bordering the site of a historic monument; a third was eminently suitable, other than being immediately adjacent to a very large planned urban extension that was already well advanced through the planning system. Each of these was immediately ruled out for further consideration. Two sites were marked as 'Maybe'; both had the right geology and were adjacent to higher-order centres, but both were rather hilly, which would make construction more complicated.

Only one site stood out: the geology and topography were ideal, and it was part of a larger network of wooded areas. It was in an area of high housing-growth close to two large towns, and there were 11 secondary schools within 4 miles of the site. It was 8 miles from a motorway giving access to central London in another 35 miles, and one end of the site was only a kilometre from a train station with a good



Forestry Commission land-holdings over 150ha.



Areas covered by planning designations.

commuter-service into London. The site was a bit small at only 70ha, having come through our 150ha 'sieve' as one half of a larger block of plantation bisected by a main road. For the purposes of carrying out some feasibility work, however, it was more than adequate.

We presented our findings to Forestry Commission 'HQ' in Bristol which suggested a preliminary meeting with the local FC team and their retained land-agents. At this meeting, however, it emerged that the site was being discussed in connection with an urban extension adjacent to one of the nearby towns, and was earmarked as recreation-space for the new development. These plans were at a very early stage but they certainly muddled the waters. So when it came to the crunch-question at the end of the meeting – 'Would the Commission be able to fund a demand-study and some financial modeling for Forest Village?' – the answer was an apologetic 'No'.

Forest Village: An Epitaph?

After two years of periodic activity, a fair amount of day-dreaming and a lot of interesting discussion, Forest Village had finally hit the buffers. We had run up against the fact that England is very much still the 'green and pleasant land' that we imagine it to be, and in the furore which erupted around the Government's proposed forest sell-off in 2010, the project suddenly looked very 'off-message'.

The government's most recent pronouncements about finding more green-field land for housing, have raised afresh the question of how we build sustainably in the countryside, and I hope Forest Village could still be a useful contribution to that debate.

And in drawing a line under the project I can't resist the following observation: Our site search was crudely done, and based only on the Forestry Commission estate, which accounts for less than half

of England's coniferous forest. So if you are a land-owner with 150 hectares of softwood plantation not covered by any restrictive planning designations (SSSI, AONB, etc) and located near to transport infrastructure in an area of high projected housing growth...do get in touch!

Matt Wood is an architect and a Director of Norfolk-based practice Lucas Hickman Smith. Before joining LHS Matt worked for 15 years with Conran & Partners in London, mostly on urban projects, but has become increasingly interested in the challenges of rural development. He has written extensively on the subject on his web-site 'Ruralise'.

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