

WHERE HAVE ALL THE WOODSMEN GONE? And Could Sustainable Timber Use in the UK Really Be Sustainable?

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INTRODUCTION

We import the vast majority of our construction timber from abroad, some of it from illegally logged sources. Incredibly with our rural economy still in decline we now import even thatching spars from Poland. Meanwhile, many privately owned British woods are used only for tax avoidance, recreation, or firewood and are not producing quality timber. What is the way forward for United Kingdom forestry at a time when even our national forests are vulnerable.

KEY WORDS

sustainable small scale forestry, British woodsman, permaculture, British timber, roundwood timber framing

MATERIAL ENVIRONMENTS

Why are we talking about woodlands? Is it the wildness, the dappled light, or the desire for men in tights? There are of course many reasons. The one I'd like to start with is material environments. Building calls into being building materials. When specifying a building and choosing materials we perpetuate the "material environments," mines, process plants, etc., that produce those materials. These things take up space somewhere on planet earth and mostly have some sort of environmental impact, sometimes also a social or health impact for the local people. When we specify wood we call into being forests—a natural ecosystem. We hope that there are real ways to ensure this sourcing is sustainable and that we can call into being the planting of new woodlands to supply demand.

When I trained in three-dimensional design there was no mention of sustainable practises. This is changing but now that I am a woodsman and timber framer I realise how important it is for people in the building industry to understand woodlands, the history of their use, and our relationships with them.

Since the dawn of agriculture woodlands were at times seen as dark, foreboding places on the fringes of society where outlaws and demons roam. However, the fuel and building materials they offer have been key to the survival and development of mankind. Woodlands have also played a part in our social development. They are the source of many fairytales, folklore, and traditions. The first age of woodland exploration is during childhood when the woodland fringes

are a playground. A place where experiments into adulthood can be played out, and where energy can be expelled without interference from the rules of the town. In adolescence they are the source of sticks for endless whittling. This is also the golden age of den building and camping out. The woodland now becomes a frontier—a place outside our comfort zone where resilience and resourcefulness may come to the rescue. A woodland is hugely important as an escape destination away from watchful eyes where one can spread out, run,

FIGURE 1. Established sweet chestnut coppice in mid rotation.



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cry, expel angst, imagine, and concoct rebellious plans before returning home for tea. The final age is the woodland as a place for keep-fit jogs, walking the dog, and romantic strolls. Soon enough the cycle starts over and young families are taking the kids out in their first perambulator excursion.

I grew up very near woodland and played there constantly as a child. I'm convinced this had a lasting effect on the course of my life. However, I do not recall ever seeing any woodsmen. My first experience of forest work came in my mid-twenties in Belize where I worked as a jungle guide. During my time there I helped a local Mayan bushman build his first family a home. This and other priceless moments living in the jungle transformed me from film special effects artist to woodsman and woodworker. Five years after returning to the UK, I spent many months in East Sussex helping a British woodsman (Ben Law) build his family home, there in the woods. The event was filmed for *Grand Designs*, and that episode became one of the nation's favourites. It was an astonishing event, which seemed so natural but in 21st-century England it took Ben 10 years of hard work and legal fights and

is of national significance. Prickly Nut Wood, the coppice woodland that Ben manages, is beautiful, bountiful, and a vision of sustainable woodland management. But why is this such a rare story and *where have all the woodsmen gone?*

The signs of our once commonplace woodland livelihoods are all around us. They are what we now call derelict coppice. In Gloucestershire, where I live, there are barely any coppice woodlands left. These were once actively and sustainably managed woodlands being regularly worked. They would have also been rich and diverse ecosystems. The coppice cycle of cutting and growing has been a human activity for about 6000 years, and wildlife has evolved to rely on this form of habitat management. The timber these woodlands produced for fuel, crafts, and construction was a truly sustainable and renewable resource. The art of coppicing, which is a small-scale operation, is rather like getting a haircut. This process relies on working with our native broadleaf trees, which actually increase in vitality and longevity if sensitively cut in the dormant season. Coppice trees live many times longer than the same tree left to mature naturally. Coppice was cut on different yearly cycles to produce different types of building material. For example, 7 years produced walking sticks and other small canes. Longer cycles would produce roofing batons or laths all the way up to mature trees, called "standards" supplying large structural timbers and material for roofing shingles. This art of coppicing evolved out of common sense and is now recognised as one of the most sustainable ways to balance our fuel and timber needs with the need to maintain woodlands for biodiversity and for our own recreation. Given our increased demand for timber, firewood, and sustainable living, you would think that woodlands managed in such a way would be thriving across the country today.

To give some historical context, by the 19th century the enclosures had seen most common land grabbed, privatised, and fenced off by those with power, influence, or money. Most of our large forests were already private royal hunting

FIGURE 2. Happy child in woods.



FIGURE 3. Bushmans House in Belize.



FIGURE 4. Wattle and daub on roundwood timber frame. Woodsman's home in East Sussex.



FIGURE 5. Cut coppice in first year of re-growth.



grounds and public access was strictly controlled. The people working the land did not have the right to stay there permanently. Usually woodsmen would either work for the landlord or buy the standing timber, which they could fell, craft, and sell. Woodsmen and their families, usually landless poor and possibly itinerant workers, would either live in tied accommodation, or benders (tents) on the few remaining commons or waste lands. It was not an easy life. However, as the industrial revolution progressed, Britain had less demand for small-scale woodland products and this form of livelihood started to decline. As a result coppice woodlands were abandoned and became what we now refer to as derelict coppice. Some of these ancient woodlands were even over planted with non-native conifer plantations after the timber shortages created during the great wars. It was then thought that anything fast grown on an industrial scale was the way forward, and this is largely still the predominant approach of mainstream commercial forestry. We now know that this mono crop approach using non-native (softwood) species has not been good for eco-systems and for wildlife. Additionally, this approach does not supply such a wide range of species and timber characteristics for different building applications. One example would be the greater life expectancy of an oak or chestnut roofing shingle over any species of softwood shingle.

Now in post-industrial Britain people are once again starting to be interested in our traditional woodland crafts. Numbers attending green woodworking courses, wanting to commission sustainable wooden furniture and buildings, attending woodcraft fairs, and others are on the increase. Surely now should be a time of opportunity for coppice restoration. New coppice workers setting up fresh enterprises, however, are struggling. Many have a very low turnover, which will not easily stretch to pay the rent and raise a family. Tight restrictions on rural development have minimised a woodsman's opportunity for living cheaply on the land and so combined with the high costs of living we have practically banished the traditional woodsman's way of life in Britain. In

FIGURE 6. Coppicing.



the main people who live in woodlands in the UK are there because they can afford expensive rural housing, not because they work in woodlands. However, a small network of professional independent woodsmen still exist who maintain our woodland skills heritage. These are the last people keeping alive our understanding of true sustainable woodland management and the crafts and skills that go with it. They understand wood, its building properties, and how best to grow it. Unlike a modern forester, a traditional woodsman will also be a craftsman and will know; that against the weather, riven oak outlasts sawn oak, and he or she will know how to make products this way. A woodsman will also know that outdoor timber lasts better if there are no active sugars in the sap at time of felling, and that greater strength to weight ratio can be obtained using round wood instead of square. He or she will understand other natural properties such as natural durability, tightness of grain for joint detail, which part of the tree produces the most robust fibres, and which species and cuts might steam bend the best. These traditional skills that have passed down from generation to generation have taken over 4000 years to establish and are worth hanging on to.

WHAT CAN WE DO AS AN INDUSTRY AS RESPONSIBLE CONSUMERS OF TIMBER?

Apprentice Schemes

The continuation of apprenticeship schemes is critical for keeping our woodcraft traditions alive. Young apprentices usually need sponsorship to cover living expenses whilst learning. The actual apprenticeship is free. Corporate support of woodsmen's apprenticeship schemes is the main mechanism for this. It would seem to be appropriate that construction and architecture firms feed into this. There is certainly need of more sponsorship in Gloucestershire where I live. The main organisation for national apprenticeship is the Bill Hogarth Memorial Trust, <http://www.coppiceapprentice.org.uk>.

Supporting Local Suppliers and Craftsmen

Large-scale businesses should reach out to small-scale craftsmen: Specify green wood components where appropriate, as they have to be craftsman made; specify roundwood constructions and natural wood furnishings; specify British timber and native species; and make it acceptable in culture of their business to engage with small contractors. I recently took a commission from a very large international architecture firm. The planning stage was complete and then they realised that they didn't know how it would be possible to pay me. During the three weeks it took them to work out how to financially engage with someone so small the project nearly collapsed. Another potential sticking point was that as a small-scale producer it's a struggle to afford kite mark certification for organic or FSC. I do support what certification bodies are promoting and know there are attempts to make it accessible for the small business but still it's not easy to afford. However, as a large organisation contracting a small-scale producer it is easy to check the sources of timber and processes used personally especially if they are local. Here are some links to British woodsman and craftsmen:

<http://www.coppice-products.co.uk>
<http://www.ecolots.co.uk/>
<http://www.woodnet.org.uk/>

A Holistic Design Approach

Back in 1999 I attended a permaculture design course at Naturewise in N.London. So you may be thinking "what has 70s hair fashion got to do with building?" Permaculture is actually a sustainable design methodology. I learned more about design on my 72-hour permaculture course than in three years study of 3D design at degree level. I have since gone on to do a permaculture diploma and become a teacher myself. What was completely new to me were the ways in which everything is shown to be connected. This was an enormous revelation and a whole new holistic way of looking at the world. As a consequence I gained some perspective on my place in the world and the local and global implications of my design decisions. It is a cross discipline approach that broadens our perspective on the nature of sustainable design. There is a saying about specialization that increasingly one knows more and more about less and less until one knows almost everything about nothing at all! I have heard it said that in the twenty-first century one must be a specialist of one trade and a jack of the rest. Within the methodology of permaculture are some design principals. One of the first to capture the mind is "The problem is the solution." In a design predicament it takes a while to get your head around this. It is of course an invitation to turn the problem round and then on it's head. Or, an opportunity to see the whole situation from a different perspective. Here is a rural example. A farmer owns a flat field next to a meandering river that flows along his boundary. The river is slowly washing the banks away when it floods and is reducing the size of his field. The river is a problem. The farmer next door has used the standard modern

response and thrown concrete at it. This farmer has noticed that when the river floods it deposits lots of silt and organic matter that has been washed down from farther up stream. Being a farmer he knows that where there is water and nutrients things grow. He decides to plant rows of willow along the banks. Willows being very easy to propagate from cuttings, fast growing, and water loving are an easy, cheap, and self-sustaining solution. He plants the cuttings into the banks behind faggots, (bundles of sticks) which are tied together and staked to the ground. When the river floods they collect the silt and nutrients and the willow roots penetrate them, and the surrounding soil. By the time the faggots have rotted away the willow roots are well established and hold the banks together as flood waters pass by. No solution is perfect and without it's compromises. Neither of these two solutions will of course last forever. However, the willow is self-sustaining and self-propagating and a carbon neutral solution. Here are some links to more information on permaculture:

The national association <http://www.permaculture.org.uk/>
 Permaculture magazine <http://www.permaculture.co.uk/>
 Permaculture books <http://www.eco-logicbooks.com/>
 The Earth Care Manual
A Permaculture Handbook For Britain & Other Temperate Climates, ISBN 978 1 85623 021 6.
Permaculture—A Designer's Manual, ISBN: 0908228015

A Holistic Approach to Building

We should take a step further to create meaningful links between our building industries, the needs of our forests, and the people that work them. As an example; for a while now I have been designing our structures and jointing systems to use harvests from derelict coppice and thinnings from continuous cover forestry to increase economic demand for maintaining these habitats. The systems I have developed are bespoke but are not rocket science. They are just one possible solution that happens to suit my way of working and are inspired by an intimate knowledge of trees and craftsmanship. Exploring traditional technologies and woodland crafts has helped me do this. Undoubtedly anyone studying these things will enrich their working practice and reach their own unique conclusions. I highly recommend this field of research. Here are some books I would recommend:

The Encyclopaedia Of Green Woodworking –
 ISBN 1-899233-07-5
Living Wood – ISBN 0-9542345-0-2

Roundwood Framing

The green woodworking techniques used in roundwood timber framing produce components of greater strength to weight ratio. This is possible, as the wood's linear fibres remain intact when the timbers are left in the round rather than sawn square. The jointing systems used can be bespoke, standard mortise, and tenon or metal fittings. The primary useful species for this purpose found in the UK are sweet chestnut and

FIGURE 7. Round house built with round wood.



larch. The practise of roundwood timber framing is a new phenomenon in the UK and a very exciting area of research. It also has a unique aesthetic and sound environmental credentials. Most of the same standard rules about jointing are as found in saw timber framing apply. For example, removing no more than a third of the wood for a mortice and tenon joint and using only heartwood in the active parts of the joint. There are different examples of this technique that can be visited. At the green wood centre in Iron Bridge and in the grounds of Westonburt Arboretum can be visited roundwood frames that are connected with galvanised metal plate work acting as double ended tenons. At the sustainability centre in East Meon are a frame using normal mortice and tenon with wooden pegs. There are a few producers of roundwood timber frames including:

<http://www.the-roundwood-timber-framing-co.ltd.uk/>
<http://www.wholewoods.co.uk/>

Ethical Consuming

We all have the choice of how we consume. How we spend our pounds is voting for the world we believe in. For example, sawn softwood shingles are cheap but they are from cedar

plantations. Oak or chestnut shingles are from native species forests. They cost more but they last longer. If they are split rather than sawn they last longer again. Buying British grown timber may be more expensive as well but, ask the client, who may wish to support the cause. Try to encourage clients to pay more and support the additional benefits that traditional skills and local woodlands bring; be an ambassador for British woodlands. Here are a few places to look for supplies:

<http://www.lowimpact.org/>
<http://www.greenshop.co.uk/>

Local Sourcing and Traceability

Increased demand for British timber will also start improving the quality of UK stock, which takes generations to establish but is a national asset. When you specify UK timber the supply chain is short and assurances of sourcing can be easily checked. You could even go to see the forest for yourself! Long distance sourcing will come through many countries, legal systems, languages, tracking systems, and different assessing organisations. There are many points for failure in the system and accountability and traceability can break down. Buying local helps you to buy with confidence.

Courses and Corporate Fact-Finding Trips

These can be found anywhere and are good for people at all levels. They can also be used as team building events. One such event is offered by Oxford Brooks on sustainable architecture, woodland management, and round wood timber framing. I have also taken Arup and the Green Building Council on team building days looking at traditional woodland crafts. During a green woodcrafts course you will learn a radically different approach to using wood. You will for example learn about the strengths of using components that follow the grain structure, or about steam bending of solid components and the different properties of our native species woods. There are lots of individuals and organisations offering this kind of event. Here are a few I recommend:

<http://www.lowimpact.org/courses.htm>
[http://www.wholewoods.co.uk/
page.cfm?pageid=ww-woodland-courses](http://www.wholewoods.co.uk/page.cfm?pageid=ww-woodland-courses)
[http://www.greenwoodcentre.org.uk/
WoodlandCourses.htm](http://www.greenwoodcentre.org.uk/WoodlandCourses.htm)

Supporting Sustainable Woodland Management

I've seen many inspiring woodlands over the years. Some have been wild or remote places but the few that have touched me deeply have been the ones containing humans working and living in harmony with the environment. Of those few only a couple have been collaborating as cooperatives, or land trusts that empower local people and build supportive community networks. However, it can, and does happen. For example, I am part of the Stroud Woodland Coop. This is an IPS for community benefit and is owned by the 64 local members



FIGURE 8. Families working with donkey's in woodland.

who manage the woodland for timber, recreation, education, and wildlife. For local craftsmen this form of land ownership may represent the only opportunity to work a piece of woodland with the security of tenure that any business needs—particularly working with coppice harvests as the cycles of cutting are so long. The quality of timber growth improves over decades of consistent management. Community land trusts are established by local people all of whom own an equal share. A board of directors is elected and regular meetings are held. The rules for the woodland and its use are set out in the constitution and thereby protected in perpetuity as well as anything can be. Making such purchases on the open market always requires fund raising as land prices are rising and it is a finite resource. Land is a good investment, and as we see with

the recent proposed forest commission sell off, local ownership may be one of the best ways to safeguard woodlands against building developments or public exclusion.

If you or your organisation would like to contribute to enabling more such places to begin, do get in touch with me at Wholewoods (see the email address below).

Contact me at adrian@wholewoods.co.uk.

Other community woodland projects:

<http://hillholtwood.com/>
<http://www.stewardwood.org/>
<http://www.stroudwoods.org.uk/>
<http://www.coedmarros.com/>