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The Full

£5

CIRCLE

The journal of The Association of Scottish Hardwood Sawmillers

Featuring...

USING HARDWOODS IN SCHOOLS

Written by Ken Munnoch

A SURFBOARD FROM FAR CABINET MAKERS

Written by Frazer Reid

PRIMROSE BAY DUGOUT CANOE PROJECT

Written by Douglas Halliday



Scottish
Furniture
Makers
Association

MAGGIE BIRLEY (1965– 2018)

Maggie Birley, co-manager of Scottish Wood and wife of Jim Birley, died in June this year, after a long battle with cancer. She was Chair of ASHS from 2003 to 2006, at a time when ASHS was struggling to establish itself and expand its membership and influence.

Maggie led and worked with colleagues to get ASHS better organised and managed, including involving ASHS in work to improve Government policy on home grown hardwoods; building working relationships with other organisations including SFMA and SEDA; organising training programmes and a series of technical leaflets; redeveloping the ASHS website; organising the annual members' survey and getting the Scottish Working Woods label established.

She was born in Malawi in 1965, where her father was a fresh water fisheries officer for the new Malawian Government. She later lived and went to school in Pitlochry and graduated from Aberdeen University in 1987 with a first-class honours degree in Physics.

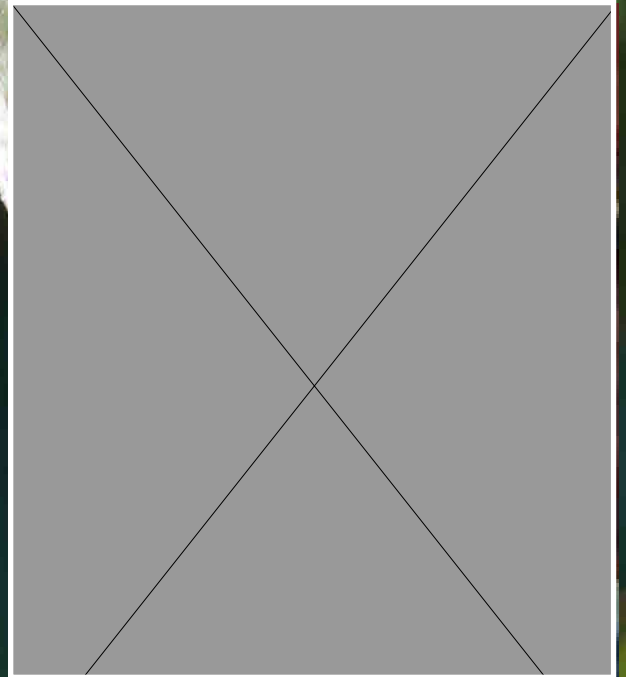
She started work in data analysis for an oil company in London, and later the Macaulay Land Use Research Institute in Aberdeen, before getting involved in 3rd World development - working alongside Jim to help civil war refugees in El Salvador set up social enterprises to improve their lives. This was through a Church organisation, and Christian fellowship played a large part in her activities and her approach to people throughout her life.

On her return to Scotland, she and Jim set up Scottish Wood on a former industrial site at Inzievar Woods in West Fife. Scottish Wood is a sawmill, and a social enterprise, that works only with Scottish grown hardwoods, and currently provides employment for nine people.

Maggie and Jim worked as an effective team in helping the development of ASHS, and the small-scale sawmilling sector as a whole, over the past two decades. Largely unrecognised has been their mentoring of new entrants into this industry, and their advice and support for existing sawmillers, which has helped to build a strong network of thriving businesses across Scotland. Maggie brought innovative approaches to management, including getting useful information and assistance from management consultants normally associated with big industry.

Maggie always made the hard decisions to do things properly rather than the quick or easy way. She worked away behind the scenes making sure things worked properly, efficiently and for the maximum benefit for people who needed it - whether it be saw millers, woodworkers or the long-term unemployed. She was part of the movement that demonstrated women's ability in the timber industry - previously very much a male-dominated world.

Maggie's positive influence on ASHS and the Scottish sawmilling sector is hard to over-estimate, and her absence will be felt by sawmillers and those who knew her for a long time.



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The Full CIRCLE

The journal of The Association of Scottish Hardwood Sawmillers

One of the Full Circle's purposes is to show the many ways in which Scottish timber is being used to make furniture and other items and to build houses and other structures. But it also has a wider perspective - to inform readers about many other aspects of woodlands and their products and the small businesses dotted around Scotland that are making woodlands products and wood an increasingly important part of our economy.

This time, thanks to the Scottish Basketmakers Circle joining Scottish Working Woods, we also include baskets and basket-makers. We discover the intricate structure of surfboards. And we learn about learning - improving the skills needed to photograph furniture well and basic woodworking skills for school pupils. Maybe some of the pupils learning woodworking skills in Fife will go on to be professional wood workers in the future.

The Full Circle also helps members of ASHS, SFMA and other organisations (or none) to get to know each other and see how people and their businesses got to where they are now. Some stay small due to preference or circumstance and some grow to become quite significant employers and producers. But, whatever their size, they are all part of a movement that is reshaping the Scottish economy in a stronger, more sustainable direction.

If you like The Full Circle, please consider lending your copy to interested people, or giving them a subscription as a gift. Contact the Editor if you'd like to contribute an article. We want it to continue to be a flagship for wood and woodland products in Scotland and you can help it succeed.



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The Next edition will be Spring 2019

All the best, Nick
ASHS COORDINATOR



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ASHS NEWS

Booklets

Our new booklet - The ASHS Guide to Grading, Valuing and Marketing Homegrown Hardwood Logs - will be published by the time you read this. Written by Gavin Munro, it is based on his experience from over 40 years in the homegrown hardwood timber trade, and will be useful for buyers and sellers alike.

Membership

ASHS membership continues to grow, with Full Members now at 40 plus 59 Associate Members and 3 Retired.

Survey

We have had some concerns about the annual Full Members' survey being too complicated and so have been working to simplify it. This will mainly affect the questions about timber throughput. Our aim is that the survey should take half an hour to complete and not require you to go searching among your files for the information needed.

Another concern is that not enough members complete the survey, leading to conclusions that may not be robust. We need to have over 90% of Full Members completing the survey (from about 30% at present) to be sure of what we say. The survey is important to justify the Forestry Commission's continued funding, and also to make the case for the importance of the small sawmilling sector to government.

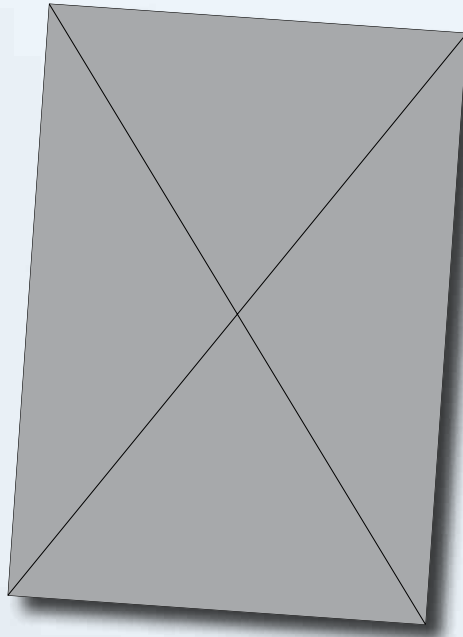
We have been discussing the usefulness of a wider survey including Associate Members and non-members, and we hope that this may happen in the next year or two.

Solar Kiln

Work has been continuing on the solar kiln, mainly by staff at Angus and Mack alongside Ulrich Loening, although with delays due to the demands of running businesses. A quantity of planks was cut by Keith Threadgall and the solar kiln will soon be drying its first trial load of timber. There will probably be some modifications to the design to improve its performance, but all concerned are to be thanked for their effort to bring this project from an idea to reality. We expect that solar kilns, which can be installed easily and cheaply in the most remote locations, will make a great difference to the production of seasoned timber in Scotland. There will be a report in the next issue of the Full Circle and a booklet detailing the construction will be produced very soon.

Scottish Forestry Strategy Consultation *(see also P8)*

Everyone who is concerned about the future of Scottish forestry, and our small-scale part of it in particular, should be sending in comments to this consultation. You don't have to complete all of the consultation questionnaire, but your comments must be in by the deadline of 29th November.



Our sector can help deliver on all three key objectives of the strategy:

1. Sustainable economic growth

Small timber and woodland businesses provide employment and income to rural communities across Scotland. They are important in adding value to resources (logs) that would be otherwise exported or unused and they do it in ways which have low impact on the environment. These small businesses struggle with lack of capital, difficulty accessing grants and other support, and lack of public awareness.

2. High quality environment

Small timber and woodland businesses depend on diverse and well-managed woodlands and provide markets for their products. In particular, we provide a significant market for hardwoods and quality softwoods from the diverse and well-managed woodlands that provide a high-quality environment. Our businesses minimise environmental damage by reducing transport distances, reducing waste and encouraging small-scale working in woodlands.

3. Improving people's health, well-being and life chances.

Small timber and woodland businesses provide opportunities for training, employment and self-employment for people especially in rural areas.



Written by,

Nick Marshall
ASHS Coordinator



Local. Ethical. Sustainable.

SCOTTISH WORKING WOODS NEWS

Scottish Working Woods has been quiet of late due to changes in personnel, but it is now more active with new representatives, more licensee applicants and a new member organisation - Scottish Basketmakers' Circle. The committee is now Jim Birley (ASHS), Angus Richardson (SFMA), Emma Chapman (SWHA), Anna Liebmann (SBC) and Nick Marshall.

The Scottish Basketmakers' Circle is a natural choice for membership of the SWW label, as its members grow willow and make baskets, chairseating and willow structures for environmental sculptures in Scotland. SBC organises exhibitions, courses, demonstrations, lectures, rural shows and craft fairs to promote willow growing and use and has about 110 members across Scotland.

Lise Bech is the first SWW licensee. She says, "I have been growing willow for 30 years and it would be wonderful for that to be recognised as a good thing to be doing".

A lot of SBC members grow willow as an integral part of their practice. Many have come to basketmaking and willow growing because of its positive environmental impact, but there's no public understanding of this apart from explaining it to each customer or writing a long and seldom-read explanation.

According to Anna Liebmann, "For myself, growing willow or buying from a local grower takes longer and costs more, so there's no economic benefit. It's a very tight market, so a label that promotes Scottish, local and environmentally-grown willow would be a great benefit. There is a long-established willow growing industry in Somerset producing a quality

product, so makers will need an incentive to use Scottish willow. And of course, more demand means more willow beds in Scotland with all of the environmental benefits they deliver, including shorter transport distances."



Scottish Working Woods aims to provide certification for all sorts of small, local, environmentally-aware businesses making things from trees or woodland products in Scotland – basketmakers and willow growers are an important part of this story.



Written by,

Nick Marshall
ASHS Coordinator



SCOTTISH WORKING WOODS PRODUCTS

On this page, we showcase products by some of the makers licensed to use the Scottish Working Woods label. All of these products use over 90% Scottish timber, locally sourced, sustainably produced, by small businesses. Many furniture makers are also members of the Scottish Furniture Makers Association, which is a member organisation of SWW.



- Joined Oak bench with elm detail 2 by Nicholas Farr (Black Rose)



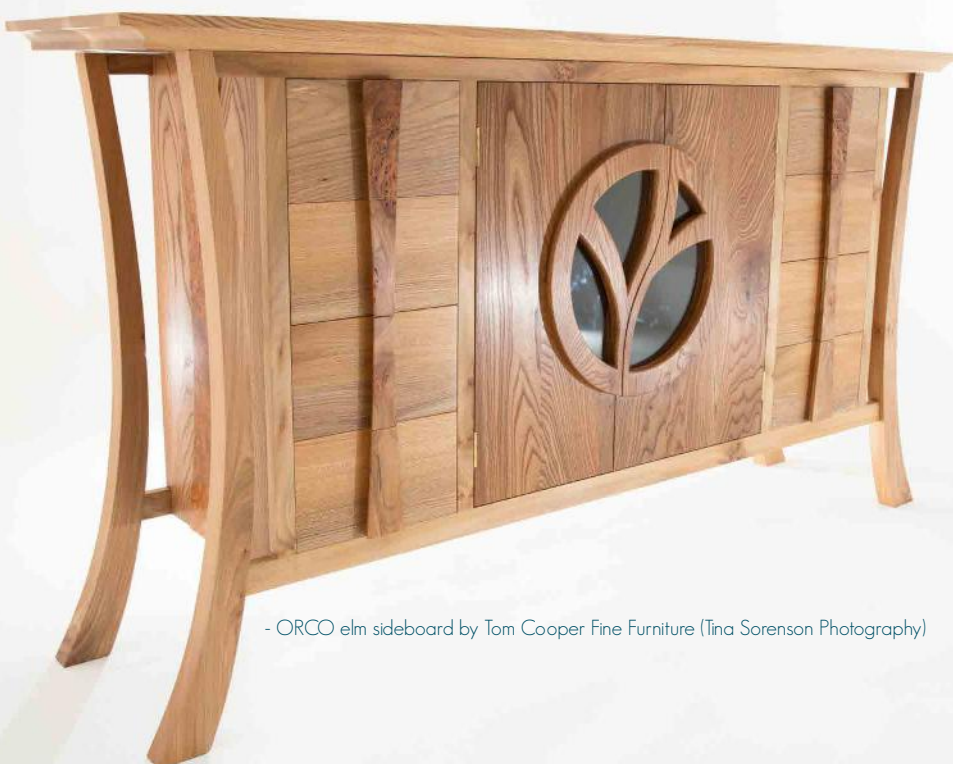
- Skinny mirror by Nicholas Farr (Black Rose)



- sideboard in ash and oak 1 by The Natural Edge (Patrick O'Neill)



- Elm and Oak bench by Nicholas Farr (Nick Farr)



- ORCO elm sideboard by Tom Cooper Fine Furniture (Tina Sorenson Photography)



- coffee table in ash and oak 2 by The Natural Edge (Patrick O'Neill)

NEWS FROM THE FORESTRY AND TIMBER WORLD

Forest Policy Group report

The FPG (which comprises environmental NGOs and foresters consultants and industry groups concerned with the small-scale community and ecologically-oriented woodland and timber sector) has produced a new report entitled "Estimating the Size of the Economic Contribution of Small Scale Woodland Related Businesses in Scotland", which can be downloaded from their website: www.forestpolicygroup.org.

The report is limited by the statistics available on small-scale businesses in Scotland (hence the importance of surveys such as ASHS Members' survey). It estimates that there are over 2,000 micro-businesses in the sector, employing over 4,000 people across Scotland, although these are likely to be significant underestimates.

The importance of this report is that it shows a wider recognition of the importance of the small-scale woodland sector in Scotland. Hopefully this will result in government action along the lines of the secondary processing grants introduced last year.

Consultation on a Draft Forestry Strategy (2019-29)

Press Release from Forestry Commission Scotland

A new vision for forestry

Views are being sought on a new draft Forestry Strategy for Scotland which aims to make the most of precious forestry resources and help cement the country's reputation as a responsible global citizen.

The draft strategy sets out a long-term vision to inspire and stimulate a shared national endeavour to sustainably grow more trees to enhance our woods and forests both to make a greater contribution to Scotland's climate change ambitions and to deliver more economic benefit for years to come. The launch of the consultation, which runs for 10 weeks, is a key element in the delivery of this year's Programme for Government.

Launching the consultation at Newbattle Abbey College, Dalkeith, with forestry and rural skills students, Fergus Ewing MSP (Cabinet Secretary for the Rural Economy) said;

"In April next year, the forestry devolution process will have been completed and forestry in Scotland will begin a new chapter. Scottish Ministers will be fully accountable for forestry and two new forestry agencies will come into being.

"It is only fitting that we also establish a new, long-term vision for forestry that increases our woodland area and delivers more economic, social and environmental benefits whilst protecting and enhancing our forest resources so that they provide more benefits for more people in 50 to 100 years' time.

"It is also fitting that this Strategy is being developed in Scotland's Year of Young People because our young people will grow up with our trees and reap the benefits for themselves and their children. I would encourage everyone with an interest in the future of forestry to submit their views."

The draft strategy, once finalised in 2019, will act as a 10 year framework for action, concentrating on three key areas:

- Increasing the contribution of forests and woodlands to sustainable and inclusive economic growth, especially in rural communities;
- Protecting and enhancing Scotland's valuable natural assets, ensuring they are resilient and contribute to a healthy high quality environment; and
- Ensuring that more people are empowered to use forests and woodlands to improve their health, well-being and life chances.

The draft consultation will be open online until 29 November 2018. "

The consultation can be accessed at <https://consult.gov.scot/forestry/scotlands-forestry-strategy-2019-29>

New website for Woodland Heritage

Woodland Heritage recently launched its new website.

"The website was planned to be easy-to-use, whilst inspiring both current and potential supporters to help Woodland Heritage make a real difference for the future of British woods," said Trustee, Tom Christian. "For those who want to support young foresters, increase the use of UK hardwoods, protect oaks from pests and diseases, or celebrate the best of craftsmanship in wood, there are many ways to contribute, including by becoming a member."

Both individual and corporate membership are available online, full details of which can be found at www.woodlandheritage.org



THE MAKAR WORKSPACE

At MAKAR we believe everyone should have access to a beautiful, healthy and comfortable home derived from local renewable materials and skills.

As an organization, we deliver roughly a house a month across rural and remote rural Scotland. Our present focus is widening, as we increase our output, towards multiple house projects and settlement extensions. As a result, we are scaling up our operation.

The story of the Workspace began around ten years ago with our conscious transition from Builder to Manufacturer. Design has been described as the first signal of human intention, we had been design led from the start, but the execution of that intention left a lot to be desired. Our transition was informed by what we believed to be the need for a fully cooperative relationship with the original intention. Considering the whole delivery of homes, design seemed to us to be the easy bit, but like most things in life wanting to do something isn't enough, one has to figure out how to get things done; so it's an integrated process with multiple steps. Of course, for some, sorting out the intention or the first step is challenging enough and whole professions have become focused on this dilemma. We were determined to avoid this professional blind alley, to shake off the chains of what is often perceived as a conspiracy against ordinary life.

Our Design for Manufacture and Delivery focus came about through the realization that a more effective way to deliver really good homes is in a workspace where the essentials are close at hand; the information, tooling, materials, etc, plus one isn't battling with the weather and other uncertainties of working wholly on-site. We were searching for homes with better environmental and energy performance, consistent quality and the chance of continuously improving our methods. This isn't to suggest one can't be productive and effective on-site, it's simply easier and more likely with an integrated off-site approach. Now having made the transition we can appreciate the culture shift from the endemic fragmentation of the construction sector to the possibility of a holistic approach.

In any business it is important to get clear about the original purpose and motivation - what is it we aim to do? If we are sincere we must be prepared to take a different approach if it meets the needs and requirements of delivering the better outcomes identified. Other sectors have had to radically alter the way they do business - retail, oil & gas, motorcycles and car production etc, so why not the delivery of homes?

Between 2008 and 2010 we visited a number of European timber product and house manufacturers in Switzerland, Germany and Austria. We were inspired, and held the belief that we could do these things in Scotland; we were on the long winding path to a different way of doing things.

A friend in Scottish Enterprise introduced us to the business potential of the Scottish Rural Development Programme (SRDP), co-financed by the Scottish Government and the European Union for, in our case, rural business diversification and growth. Our main outcome with this assistance was a workspace facility and associated infrastructure. We were ultimately successful in securing a third of the development costs through the SRDP route without which our project would not have been possible. Another third of the funds came from a commercial loan from the Ecology Building Society, and the remainder from cash within the business.

Large workspaces in rural Scotland normally come in the form of steel portal framed structures with concrete and profiled steel infill panels and plastic insulation. They are fast to erect and the engineering is well understood, but they are generally soulless and uninspiring. We are a timber company and we needed a building that said something about us. So a sketch was made, and we discussed the implications of a large span in timber with our structural engineers.



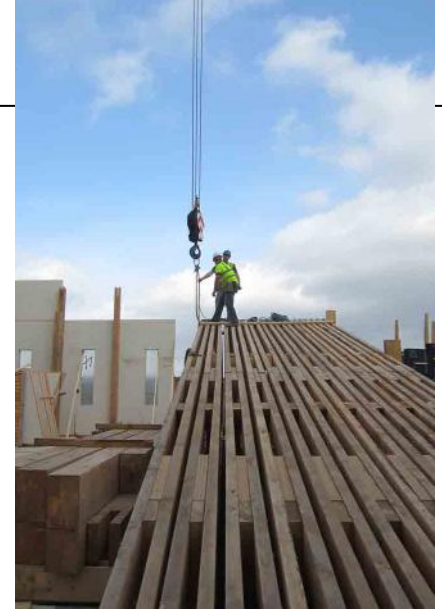
The development of a large timber building of this type was regarded as a bit odd, particularly one built from locally sourced materials, but we had some experience of such matters and we were determined. One breakthrough moment came when the young graduate engineer tasked with calculating the trusses to span eighteen metres, suggested that the method of screwing the timber members together was like the way it was done in Europe. Perhaps we have always been a little more European in this part of these islands.

Our requirements were for a large, uninterrupted high space to allow the rotation of large sub-assemblies often measuring 3 x 6 metres or more. This is done by way of a gantry crane, so we needed the height to allow this to manoeuvre. We ended up with a workspace 18 by 24 metres, formed in 10 bays of 2.4 metres. It is just over 6 metres to the eaves with the ridge around 10 metres above the concrete floor. The gantry crane spans the 18 metre dimension, and this can access all areas of the 430 square metre floor area. The floor, walls and roof are insulated, and the space is top lit by rooflights. It's a very pleasant uplifting place to work.

Entirely made in pieces in our original small workspace, the building is made up of 84 insulated timber wall and roof panels typically measuring 2.4 x 4.8 metres, 36 posts up to 6 metres long and eleven 18 metre long trusses. No single piece of Douglas fir is longer than 6 metres, as the whole structural frame was processed on site with our Woodmizer LT40. The Douglas fir logs which eventually formed the primary structure were sourced from a site south of Ullapool in the autumn of 2011, processed and air dried. The floor is an insulated ground supported slab, full of steel as structural engineers like it, and poured a few days before Christmas in the same year. This slab proved to be an ideal platform on which to form the trusses, made one after the other on a temporary jig. These were later lifted off, in sequence, from where they had been fabricated as the structure was assembled. This work started on the 1st April 2012, and it took 10 working days to assemble the building to a wind and watertight stage. The completed building is probably the largest timber span building in the Highlands.

I don't wish to suggest such a building was easy to build by ourselves, with the administrative and regulatory constraints apparently necessary in order to attract public financial support. At one point, however, we were able to demonstrate that its cost was around 20% less than the more conventional steel framed option, and this helped a great deal in making the argument for a timber frame solution.

The fit-out took another ten or so weeks, with the inclusion of a new 3-phase supply and equipment including a second hand Randek optimization saw, Striebig wall saw, Krendal 2300 fibre insulation machine and framing table. We fitted a supply ring of 240 and 110 volts and pneumatics around the entire building for flexibility of working.



As a workspace there have been various adjustments to the location of equipment and the equipment itself over the last six years, to improve manufacture flow. We have followed Lean Production principles focusing on where customer value is created and incrementally eliminated operations which do not contribute to the value customers are prepared to pay for. We could call this an amalgamation of waste elimination and continuous improvement, which is necessarily by small steps and by those doing the work, and not by supervision or management interference. The workspace allows for focus on quality rather than speed, for instance slowing down in order to absolutely eliminate defects, which for many would seem to be a pretty radical thing to do, but not if one fully understands the impact of re-work within the context of the manufacture of complex sub-assemblies.





With consistent quality and standardized methods, over time the process will naturally speed up but only if those undertaking the operations are fully engaged and empowered. Unlocking workplace creativity and innovation is, we believe, central to progressive manufacture.

During the six years since operations started in the new workspace, we have grown from a company of around 15 people to nearly 40 today across a number of teams including - design, finance, estimating, production information, assembly, finishing and operational management.

What exactly is off-site.

Off-site is fast becoming symbolic of a more progressive approach to house delivery, but like much high-profile change there is a danger that a partial understanding of both its role and purpose will lead in some instances to failed expectations and disappointment. For example, this movement is often misinterpreted as purely technology driven, with automation, digitization, virtual reality etc, at its heart with little or no room for people. This has not been our experience.

The development of competent organisations representing and driving, change is more about people than plant, more about process innovation rather than product or material development. We believe the expectation of faster, higher, cheaper, will be the eventual outcome of the off-site approach after an extended period of evolution and cultural change, rather than a given in the short term. It will take patience and commitment to achieve the shift we require in the delivery of high quality homes, because the reality is that such outcomes will be the result of high quality organisations, and the nurturing and cooperation of high quality people.

During this cultural transformation we can learn from others who have undertaken such fundamental attitudinal and process disruption. Who are the best manufacturers in other sectors, and how do we attract the brightest young people; and what motivates teams towards increased productivity and quality every time?

At MAKAR we are engaged in such good trouble as a result of being seriously disappointed at the housing situation in our country and the belief that this need not be the case and that we can achieve so much more.

In a future article, hopefully in the next Full Circle, I will give more information on the process from securing an order for a new home to handover to our customer, plus some insight into some of our ongoing multiple house and mixed-use projects.



Written by,
Neil Sutherland
 Owner and Managing Director MAKAR
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SPRUCE UP YOUR IMAGES!

As furniture makers, we design and create beautiful things that we want people to admire and cherish. Yet how should we best draw attention to them in the modern age? These days there are so many channels we can use to reach potential customers - website, social media, advertising etc etc. However, the key starting point is a little more traditional - the humble photograph. 'A picture is worth a thousand words', goes the well worn phrase and so it is when we look to present our pieces of furniture to the outside world. People generally want to see great images of our work rather than read reams of text.

Many years ago, I dabbled with photography, but I have never considered myself to be a natural photographer. I do, however, get the importance of presenting work well, as that is what creates the first impression in an age when people's attention span is becoming ever shorter. So, for all these reasons, I grabbed my wife's DSLR camera and travelled down from the frozen north to spend half a day in Linlithgow with Monika Grabowska, who led a session on photography as part of the SFMA's learning resources programme.

Monika had a packed presentation with lots of detailed information to give us. She led us patiently through the main principles of how to light a subject - don't mix daylight and artificial light, she implored us - not an issue I'd thought about previously. Then came the basics of controlling light using the settings on our cameras, something else I'd never done before. She then went on to talk about the impact of choosing different aperture settings and shutter speeds to create the right effects. Finally, how to set up a piece to be photographed as well as the importance of a decent tripod!

For readers thinking this all sounds very dry, technical stuff... well, there's no getting away from the fact that the nuts and bolts of photography is pretty technical. However, once we had this info under our belts we took up our cameras and had a go for ourselves, firing off a number of shots of an IKEA stool (brought in for the course!) to see what happened.





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Custom Lane Custom Wharf
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Fri 16th - Sun 25th November
Admission Free

See www.sfma.org.uk for more details...

The results were quite surprising and gave a real insight into how we can control how our pictures look to show off our pieces in the best light.

The added advantage of digital cameras is that you can shoot as many frames as your memory card will hold and then just delete the chaff you don't want. A far cry from the old days when you had to part with hard-earned cash at the photography shop or set up

and learn how to use your own darkroom just to see whether your experiments had worked. This all makes the whole process a little less daunting for the amateur.

None of us expected to become David Bailey in a single afternoon but we all took a good deal away from the course and felt it was very worthwhile.



Written by
Mike Whittall
Ochre & Wood
www.ochreandwood.com





THE WOOD PLACE

Lanarkshire Hardwoods; Patrick Baxter Furniture; Dovetails Woodworking Tuition

A chance job in my gap year between school and uni with a furniture designer maker in Melbourne, Oz, rekindled a teenage love of working with wood and on my return I could barely be prised out of my parents garden shed, quickly turned into a workshop, to get down to my law studies; 6 months into my course I had decided to take up furniture making for a living, but I finished my first year exams and then was off like a shot! I got an unpaid sweeping up position with a cabinet maker in Shropshire, David Ackroyd, who was kind enough to offer me a full-time job after two weeks. He had chucked me in the deep end on day one had me making a mahogany and ebony sideboard, all hand veneered, inlays & French polish! It was a steep learning curve, but you can imagine how after 3 wonderful years there I had learnt enough about furniture design, construction and timber to set up my own business back home in Scotland.

In summer '91 I found a semi-derelict old dairy farm, Girdwoodend, in South Lanarkshire, going cheap and moved in, nesting with the mice and no heating bar one open fire that first winter, but at least there was a reasonable roof on the cottage. I renovated and made workshops and stores out of the byres and officially started trading as Patrick Baxter Furniture in June '92, aged 24, making bespoke traditional furniture to the highest standards of cabinet making. I lived thriftily, and the furniture was modestly priced, so the work came in by word of mouth and repeat orders from a handful of good loyal customers, mostly with big country houses and estates, all through the '90's. I trained up and employed up to 5 members of staff at any one time though it was typically about 3 full time cabinet makers and 1 part time designer / draughtsman - I was always more a maker than a designer!

Good timber that was dried properly - that is slowly seasoned, to a sufficiently low moisture content point and then stored and maintained at that, was difficult to find and I loathed having to go back and remake furniture which had failed as a result of the poor timber I was buying - I was all about reputation, quality and integrity so that would not do at all! In '94 I started taking in local trees, ferrying them initially to Ulrich at Lothian Timber, based then at Rosewell, to get cut up on their mill, then back to Girdwoodend where it didn't take much research, effort or time to learn how to stack and season wood properly - there's that word again! It's not rocket science!


The timber conversion train of progress moved on through sub-contracting to various mobile sawmillers who came for a week once a year with their varied and interesting mills and left me with a solid month of stacking, to a mill belonging to a friend but which lived on the premises and which I had the use of, an old LT40; through to purchasing with a 3 year loan my first mill, a sturdy diesel mobile Forester Tom Sawyer shoe-horned into the old Dutch barn; then stepping up with the aid of a local council grant and the selling of the former mill to a static electric Tom Sawyer, which I still run regularly, installed down in the purpose built air drying shed. Finally, just a year ago the big Forester Sawmaster was added, after a 6-month restoration job and a rake more concrete.

Through the years the structure of the business has evolved - by the late nineties I had amassed quite a surplus of timber already, mainly in the form of offcuts, and found a ready market selling them off cheap to local craftspeople and woodturners. At that time, I kept the prime

boards I was producing at a very small scale for my furniture commissions and was already making a big thing about local provenance of the timber to those customers. I was still having to buy in some boards to supplement my own produce though. In 2000 I made a decision to put the offcut and board sales on a proper footing, stepped up sawmilling and seasoning production, started selling some of my prime boards as well and came up with the name 'Lanarkshire Hardwoods' for marketing purposes.

Not long after that the stock market took a dive around 2001/2 and my regular furniture customers had nothing spare to send my way so with great reluctance I made all my cabinet makers redundant and entered a decade of working mainly alone, partly with casual labour and partly friends help. I switched to more organic forms of furniture making and made a lot less of it, but was able to choose the good projects - more workshop time was spent with another side to the business - antique furniture restoration; however the bulk of time was apportioned to timber, growing the business, getting my first website, improving the machinery and every month or two finishing another load of long-air dried timber through the kiln, slowly building up experience in drying many timbers, aided by actually making furniture out of much of it to test how each batch performed and having the incredibly valuable insight into what is needed by a furniture maker from a plank of wood, with the cabinet making experience I had developed over 20 years and feedback from my customers.

Around 2010 my wife Rachael & I decided to give world domination a go and we invested some more serious chunks of money and massive amounts of time and physical effort in building up all the sides to the business but above all Lanarkshire Hardwoods to a far higher level, partly to meet demand and partly to provide a more secure living; new sheds arose; extra and newer forklifts; we employed up to 5 again, with all the costs in training, new machinery upgrades and H&S implications, let alone wages that went with them. It was a blur of activity and organisation for 5 years, with highs but mostly lows and some big losses and I eventually came to the conclusion that managing staff at that level is not for me at this stage in life; gradually the staff have left for various reasons. I still have 3 that I maintain links with to pass on work to in their current businesses when I am too busy.

A man wearing an orange safety cap, glasses, a dark green long-sleeved shirt, a high-visibility orange and white safety vest, and dark trousers is standing in a workshop. He is using a blue chainsaw to cut through a large, thick log. The log is resting on a wooden pallet. The workshop floor is light-colored and polished. In the background, there are various pieces of machinery and equipment, including a forklift. The lighting is bright, typical of an industrial setting.

*Around 2010 my wife
Rachael & I decided to give
world domination a go...*



Since the start of 2017 I have been working alone; I have added a vacuum lifter down at the sawmill and got clever with how to employ it and use the various forklifts to reduce physical lifting right down to very modest levels. Getting enough time at the sawmill to maintain sufficient production for future years is a constant struggle but one day spent there now produces what 2 to 3 men took a 4-day week to do, so it is at least very efficient. I only need about 30 decent productive days per year there to maintain current sales levels, though more would be good.

Taking up a large proportion of my time these days is machining timber for the shop - my market is mainly in dressed timber of large or interesting timber and slabs. A recent improvement to reduce physical effort was a machine feed for the 650mm wide surface planer, but otherwise it is still one of the most heavy-lifting parts of the business. Now I am 50 and after 32 years of long hours of heavy board and furniture lifting in addition to property maintenance and improvements it is a constant struggle to keep in sufficient physical trim to do this kind of work. How I wish the accountant would allow as business costs the services of my physio, acupuncturist and chiropractor!! Currently on the wish list is a Lucas Mill with planing attachment which could work in the shed with the forklifts and vac lifter and do all the 40kg plus boards, leaving the lightweight ones able to be planed traditionally through the woodworking machinery workshop. There may need to be a move towards selling more rough-sawn if that doesn't work out, especially as so much of the stock being produced now on the big mill is great wide boards of 600mm up to 1800mm wide.

The current dry, insulated wood stores have been in use for many years now but were conceived in an age of lower volumes of timber and above all much smaller board sizes. Access is at best via doorways permitting a 700mm wide trolley / barrow so additional board stores are now also on the list, ones which would permit small forklift access. Cost may prove prohibitive, but it is hoped that at least a simple extra insulated store for rough sawn boards to be loaded into straight out of the kiln can be erected within the next

year, avoiding the need to manually carry every single board out of the kiln one by one through the narrow door into the dry wood store every kiln unloading day.

Having trained up a dozen or more staff over the years, many to high standards of cabinet making, and having developed a market selling to amateur woodworkers, it was a natural progression in the last decade to move into teaching woodwork and furniture making in my workshops; various approaches have been trialled and this year I have entertained 2 groups of 7 budding cabinet makers approximately every other Sunday, passing on fine tool sharpening skills, hand planing, cutting dovetails, surface preparation and polishing. I have some who come back for more and I gladly supervise their journeys into full size furniture projects in my cosy workshop. Recently I added some limited provision of workbench space for makers. The teaching side has for many years gone by the name of 'Dovetails'.

With the numerous aspects to the business, and thoughts of more in the pipeline, prompted by what on earth to say when answering the phone, a few years ago we decided to lump all woody activities here at Girdwoodend under the title of 'The Wood Place' - many of our enquirers called us that already. For simplicity to customers struggling with 'Lanarkshire Hardwoods', mainly from south of the border, 50% of our market, we quickly adopted the website name www.thewoodplace.com too and have now gone into our 27th year of trading, still using Patrick Baxter Furniture, Lanarkshire Hardwoods and Dovetails.



Written by,
Patrick Baxter
The Wood Place
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FAST APPROACHING A TIME OF CHANGE

Looking forward

This is likely to be the last update from an organisation entitled Forestry Commission Scotland (FCS). On 1st April 2019 the Policy, Plant Health, Grants & Regulation / Conservancy functions of FCS will move to "Scottish Forestry". Alongside this there will be a new Forestry Strategy, as required under the new Forestry and Land Management (Scotland) Act. More details on each will follow in the next edition.

Small Local Forestry Businesses - Policy Paper

Earlier this year the Forest Policy Group published a short paper on how the future development of small local forestry businesses (SLFB's) can contribute to Scottish Government policy objectives, especially economic policies, how their development could be handled by FCS and how this should be signalled in the revised Scottish Forestry Strategy. Their report was published in June and covered: SLFBs Definition and Scope; Key Benefits; Policy Background; Business Support & Policy Challenges, leading to a concluding Proposal on Policy Support.

We would welcome thoughts or comments on this short paper so if you are interested please get in touch direct to request a copy.

Some more practical aspects

1. Harvesting and processing grant.

One change to the rules is that we will consider applications that purchase equipment through hire purchase agreements, but will only provide grant support against expenditure incurred within the first two years of the initial payment, and will not support the cost of interest charged in a hire purchase agreement. A new round was recently announced with applications "invited for projects that will be completed in 2018 or 2019, and for those with hire purchase agreements that will be claimed in 2020." The closing date for submission of applications is 30th October 2018. A list of equipment that might qualify for grant aid is given in the guidance notes (see "Forestry Grant Scheme - Harvesting and Processing").

Please check the web based guidance (last update 21 June 2018) and if you then have any detailed questions please contact your local Conservancy office. As they will be processing any application it is best to be clear from the outset what is supportable and what information they will want.

2. Hollywood here we come!

Well, maybe. But in the meantime I am delighted to announce that the new film shot on location at Scottish Wood with Gavin Munro taking the viewer through the finer details of "Grading, valuing, measuring and marketing hardwood timber in Scotland", especially oak, is complete and will be formally given the red carpet treatment at the forthcoming ASHS sawmilling event - minus the carpet!

The film seeks to demystify the process by which hardwood trees are graded and valued. It is aimed at foresters, woodland owners and sawmillers new to the topic or who wish a refresher of the key issues. A big thanks to Jim and his team at Scottish wood for their support and input, and of course to Gavin.

It will be hosted on the FCS web site and we would hope that a link to it can be created from the ASHS pages to act as a gateway.

3. Other ASHS outputs supported by FCS for 2018/19

- The vital co-ordination and promotion activities undertaken by Nick Marshal.
- A training event on sawmilling, with supporting guidance.
- A booklet on grading and valuing hardwood timber to support and run in parallel with the film.
- A booklet and a training event on solar kilning.
- Production and publication of two issues of the Full Circle Journal.

We look forward to working with ASHS and seeing delivery of these outputs which will further assist the sector in its continued growth and skills development/enhancement.

Broader engagement through joint working

The Soil Association are delivering a 3 year knowledge transfer and skills development programme for farmers and land managers across Scotland interested in sustainable, productive and profitable farming and land use. This is delivered through interactive farm based events and workshops with related demonstrations. Of the 40 events planned 12 will focus on woodland themes, of which 3 should be taking place before the end of Feb 2019. The programme is being co-funded by FCS, amongst others, and presents an opportunity to engage with farmers and land owner who could be selling timber in suitable quantities, or may even be interested in establishing new businesses in areas where there are gaps in the network currently.

The first event is taking place on 18th Oct near Kirriemuir with a potential demonstration of an Woodmizer by Keith Threadgall. Nick Marshall will be their link to ASHS if you are interested in the where, when and what's of this and other events.



Written by,
Derek Nelson

Business Development Team
Forestry Commission Scotland
www.scotland.forestry.gov.uk

FOREST ENTERPRISE - PRIMROSE BAY DUGOUT CANOE PROJECT

The diversity and quality of timber grown on the National Forest Estate is reflected in sales to specialist timber customers who seek quality, large dimension timber for all manner of conventional and sometimes unusual applications.

A recent specialist sale where the end use was certainly different involved the purchase of a single log by the School of Ancient Crafts in Edinburgh who required a 9.0 metre log with a top diameter of 0.8 meters for the purpose of converting it into an Iron Age canoe using traditional tools.

Logs of this size are not common and a Scotland wide search was initiated to find a suitable tree which was eventually found at Primrose Bay in Inverness, Ross and Skye Forest District where some stunning Douglas Fir has been harvested as part of the A82 harvesting Project.

Finding the right tree at Primrose Bay was one thing but recovering it was another matter on what is a technically challenging site with steep, rocky slopes and the ever present A82 trunk road at the bottom of the site. This particular log weighing 7 tonnes was winched through the entire length of the harvesting site and skilfully placed at roadside, a testimony to the professionalism of both local FES staff and Mull - based harvesting contractor Calum Duffy.

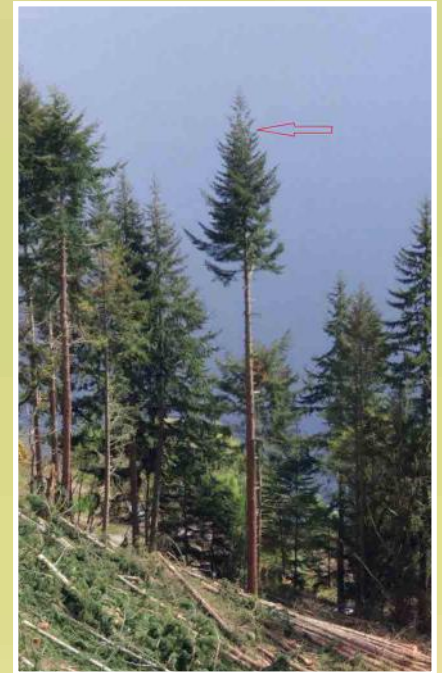


Photo: The selected tree!



Photo: Cable crane extraction at Primrose Bay

With the log safely deposited at roadside, the next phase of the operation could take place which was the not insignificant journey south to Edinburgh. Owing to traffic volumes, haulage from Primrose Bay is restricted and no timber movement is permitted during the traditional holiday periods of July and August. This dynamic called for close coordination between the purchaser, haulier, harvesting team and local forester to ensure that all provisions were in place for the collection and moving of this specific load.



Photo: The 9.0 metre Douglas Fir log awaiting uplift from Primrose Bay and conversion into an Iron Age long boat

In June 2018 the log was loaded onto a heavy lift transporter to start the long journey to the Hub in Granton, Edinburgh where its conversion into a canoe took place over the summer through workshops held to give the local and the wider community an opportunity to learn new skills. While Douglas Fir was not an available species during the Iron Age period in Scotland, it lends itself to being easily worked which is helpful as an introduction to wood working with traditional tools such as the adze.

Most of the timber extracted from Primrose Bay will be destined for traditional markets such as house construction, pallets and chipwood. It would have been impossible to predict that in the case of one especially large log, a very unique item would be created. More important is the transfer of new skills and an appreciation of timber to a wide group of people who can engage with their on projects in the future.



Photo: The Primrose Bay Douglas Fir log being lowered into its new home at the Hub, Granton (picture provided by Granton Hub)

Written by,

Douglas Halliday

FCS Forest Enterprise Scotland Niche
Marketing Officer

SCOTTISH HARDWOODS IN SCHOOL

Many children experience working in wood, metal and plastic for the first time at secondary school. The unfamiliar workshops with strange looking tools and even stranger 'techie' teachers will be an experience that many will remember. The educationalists may rebrand it as "Craft, Design and Technology" but it's still 'techie' to the kids. What has changed is the emphasis today is less on craft and more on design. Previously a class would all make a project such as a garden trowel and success would be producing an accurate copy of the teacher's exemplar. Today, pupils would be given a brief to 'Design and manufacture a phone holder for a teenage market'. This obviously has merit in a post-industrial society but after several weeks of producing moodboards, sketching initial ideas, researching the target market and refining the ergonomic and functional details then producing CAD drawings the cry grows louder as kids get impatient.

"When are we going to make something?"

When moving from the old to the new Dunfermline High School I unearthed a sample box from Fitchit and Woolacot, a school timber supplier with sixty samples, mostly tropical hardwoods, for use in schools. Opepe, Zebrano, Iroko, African walnut, Sapele and more were available to the pupils. Clearly this was unsustainable and now most state schools will use timber suppliers as dictated by the local authority so plywood, MDF and pine laminboard are the normal materials of choice for projects across the school.

Most schools will give pupils a range of experiences in S1 and S2 working in wood, plastic and metal. Desk Tidys, spatulas, keytags, and phone holders abound. In S3, pupils can select Design and Manufacture at N5 level (similar to Standard Grade or O level) and pupils will be expected to be able to describe the properties of different woods and suggest advantages and disadvantages in using hardwoods within their projects.

Much is written about the barriers to getting pupils out into the "real" world away from powerpoints, whiteboards, online learning modules and the like but there are even greater volumes to write on the benefits. School can seem entirely disconnected from the rest of

the world. Youtube can bring fantastic learning resources just as easily as it brings dross but it is sometimes for pupils difficult to differentiate between the two. Most of us will have forgotten the thousands of hours spent in classrooms but will still be able to recall a school trip.

One problem that will increase over time is that younger teachers no longer have a driver's license that allows them to drive the school minibus. On more and more occasions I am asked to accompany the school hockey teams to away fixtures. Is it my tactical skills or motivational abilities that are needed? In reality it's only my prehistoric driver's license with the D1 entitlement that seals the deal.

When Maggie Birley from Scottish Wood offered Fife secondary schools free hardwoods for projects the response was essentially "what's the catch?" Fortunately, as I discovered there was no catch and indeed she was also willing to invite class groups to see how a small sawmill operates. Getting a class group out of school does present challenges and a sawmill does sound like a health and safety horror movie with a mass of whirring blades and rolling logs, but it is possible. Get approval for a trip from the



Head. Do risk assessment. Send a letter home. Organise transport. Complete Fife's online trip application process. Collect money. Go!

The short drive across West Fife bought us to Scottish Wood. A totally different environment. The sawmill dog strolls across to greet us. Pupils would happily spend a few hours throwing sticks for him. No time. We must make it back for the school buses come what may. Maggie shows us the sawing and seasoning processes. The kilns where humid tropical heat envelops you. The showroom is where she describes the functional properties of different hardwoods. It is the aesthetic properties that engage the pupils most. Beautiful pippy oak, spalted beech and shimmering sycamore.

Back at school I realise the monster that I have made. Pupils who would have been happy with MDF now produce cutting lists where they specify waney edged yew or heartwood elm.

I expected Sally to rapidly tire of constructing the tree themed jewellery box. The first hegner saw blades snapped causing terror. On blade five she didn't even call me over and changed it herself.



Erin faced similar challenges with her makeup brush holder but the wax finish on the beech had the rest of the class cursing that they had not copied her. Connor kept it simple by upcycling four old pistons from his dad and let the elm coffee table top do the talking. The bottom end bearing caps looked a bit strange protruding from the top but he was delighted.



Ross made a shelf for his "Guardians of the Galaxy" collection. He managed to jigsaw the upper edge into a fair interpretation of Groot- no small effort with our school jigsaw. Megan combined translucent acrylic with beech to create a beautiful retro Space Invader shelf.



I think that the common thread from the projects was a connection from the pupil to the material that's normally missing. This comes back to the trip and the ability of the pupils to source the materials for the project themselves. Education speak alert- It's simply that experiential education is more emotionally rich than class based learning.



Written by,
Ken Munnoch

WOODWORKZ – SAW-MILLERS IN THE NORTH-WEST

It is time to relate to all other members what we in the far NW get up to and how it started, although Callum on Raasay sneaked in and got there first; ie slightly more West but surrounded by water! There may be another local member soon...

Some 4 years after ASHS was formed I was invited to join. I was a single individual with a shiny new chainsaw mill without a pick-up truck looking to provide myself with decent hardwoods for furniture-making. My efforts at making things (as a hobby) fell foul of poorly kiln dried timber, lack of selection except for obvious tropical hard woods, and significant distances to buy anything. At some stage, with the new pick-up, I ventured into the unknown wilds of darkest Aberdeenshire to buy a consignment of Ash with "a nice streak" with which to make a kitchen for my new home-building project. It had been kiln-dried in the seller's garage.

A little later a conversation with John Arrowsmith was a turning point and I bought a kiln. How does one fill a kiln? I had felled a number of useful trees for a friend's house-building project and found a local mobile miller-my first introduction to a narrow-gauge mill. He was busy for a week milling some four species with me stacking and carrying 4 miles home. I was impressed with the results. John Arrowsmith wasn't so impressed with my storage solutions which had to be undone rapidly, particularly the treatment of the Sycamore. No pressure-washing and end stacking...I reckoned I could still use the blue-stained timber. Could not go to waste!

Then came the chainsaw mill and a lot of hard work after being offered my first tree which was in Applecross. I recruited some friends and explored the business of slicing up a large wind-blown Ash and in the process discovered the Olive variety. Hooked!

Over three or four years there followed the sequence of (a) requiring transport, (b) adding a trailer, (c) needing some means of lifting - the crane-trailer, (d) buying a Lumbermate 2000 band saw mill. I could then call myself a saw-miller even if it was in the lower garden.

Some time after, I was offered some development land at the Lochcarron Industrial Estate and have had plans to develop it to the maximum possible. During this time various helpers came and went, all mainly part time, as I am, sort of. A main factor in setting up and operating a yard was the ability to move timber, and after a visit to Whitney sawmill for the second excellent "Woodland to Workshop" course, seeing a JCB Teletruk in operation, we knew what we needed. Perfect for a small yard.



There was a partnership which didn't work, but the manpower situation steadied with four of us about 5 years ago, not long before I had bought the Timberking 2200 at the suggestion of Frank Gamwell, and the situation started to look much more serious. What really shaped the future efforts was the mention in ASHS news of two gents holding a seminar on business development and producing business plans. (The Company Creators) Between 2013 and 2014 they scrutinised my activity and



gave their sage advice; stop trying to do too many things and concentrate on timber and little else. So I have, and continue to develop to their plan. Pity they retired!



Originally, I had enlisted the help of Makar to design three buildings; mill shed, main building with office, furnace room, kiln room, dry storage and workshop, and then a large slatted air-drying shed. The planning discussion with a local officer got off to a sticky start when I was asked how I would get a 25t log lorry in to off-load. There followed a description of narrow-gauge band-saw milling but the eyes had glazed over. The idea of building a large timber construction for producing timber appealed but never actually got started. The issue was how to raise the level of all aspects of the business equally so that there would be no bottle-necks for production. Nearly wrote log-jam..

However, juggling acquiring logs and transport, milling, stacking in-stick, kiln drying and storage with eventual sales, all seemed like an impossible conundrum, with any one aspect spoiling the sequence. This is particularly important when there is limited space for storage or development of machinery to speed up the processes. I later had considered a basically metal building to contain all the activities which would cover the entire site ~ measuring some 35m x 24m. We would have produced and fitted all the later timber parts, but this relied on acquiring the adjacent plot for the log storage.

This did not happen, but a new and more exciting suggestion was on the table; the Local "Woodland Group" - Lochcarron Community Development Company with Kirkton Wood to the East of the village could possibly offer a site in conjunction with their own improved facilities. That is still in the discussion phase but if it comes to fruition we would have a sensible plot to build appropriate buildings - along the lines of the recent idea to roof over the current

site, plus correctly sited drying sheds for logs and air-drying board storage. Don't forget the West Coast rain! It would also result in the LCDC planning their own building(s) in conjunction and enjoy a good deal of mutual-benefit activity.

It will be an off-grid site since silly money would be required to get mains electricity in, but this aspect will be investigated using generators which can supply some heat. The main advantage will be space.

Expertise for all this rests with the team who are practical people with marine backgrounds like me, both with timber in the blood, one army who messed about with trucks and tanks, and a self-build house-builder and computer person.



You may gather from the above that the acquisition of logs has mainly come from "local" finds; distances North of Perth are generally greater and we have travelled the odd hundred miles to extract a decent quantity. This still makes the strategy of actually extracting ourselves cost-effective compared to the buying in of what might be on offer from further afield taking the economic viewpoint. Then there is the independence aspect, meaning we can program when and how to acquire timber. To date, Woodworkz is the only member company to actively extract timber, and we have done so in some unusual places, often with difficult access, and salvaged some excellent timber which would otherwise be firewood.

There is a comment about waste of timber on our web site and it continues with apparently no controls in place. This is something I am irritated by. Recently we were informed of some 60+ trees felled to the North and suggested by an associate we work up an extraction plan. Two points have prevented it (a) nowhere to put it, (b) the attitude of the landowner. Amongst ASHS members, who would fell hardwoods in Spring/Summer, and without dismantling, in chaotic style. Some of those trees will be 200 years old and now lie in a dangerous tangle, rotting before long.

To enhance the extraction activity, Woodworkz bought a Unimog back in August 2015 which was sourced from Oxfordshire. Neville and me took turns driving with the other in the LC following all 580 miles and 2 ½ days. Sometimes we got up to 40 mph! Our first experience driving a Unimog. We have since recovered.

The main attraction was the large crane for obvious reasons. We put it to work in Gairloch estate, Flowerdale, taking out logs from an enormous Elm that on one calm night had just fallen over. I wanted to preserve the 6.7m main bole and right up to actual moving day it remained in that length. Great to have the choice! It was cut to 4m and 2.7m due to a slight kink and sheer difficulty of getting it out without demolishing a fine stone wall. Being able to decide for ourselves what length logs should be was an early advantage well learned.

The 'Mog' was taken down to Atkinson Vos in Cumbria for a renovation job which lasted 5 months. This included dropping it off for a major renovation of the crane at Cumbernauld on the way home. (20t-m capacity)



The first job was a return to Flowerdale to collect the remaining large logs.



There have been some significant collections to date.



The opportunity to move to a much larger site will enable us to plan purpose-designed buildings and get virtually everything under cover as well as completing a lot of the work ourselves. Before this happens, I intend to invest in a Lauber kiln which I have wanted for

some years, but I am greedy, I want three! They are not only computer-controlled but have mist sprays to control the drying rate and ensure internal/external MC is not excessive (<4%?). This is done through probes and reference to a sample of timber. The desire to expand kiln ownership comes down to flexibility - so that we can have different quantities drying at different times and with varying species.

With larger premises we can hold greater stock, expand into different markets and make a success of the more northerly ASHS member company.

***One fact to consider;
Woodworkz is offered trees
somewhere, in one's or
two's, or in many tonnes,
every week!***



Written by,
Stuart Macleod
With the team; Neville Robbins, Robbie
Brown & Adam Turner
www.woodworkz.co.uk





A SURFBOARD FROM FAR CABINET MAKERS

I'm Frazer Reid and I have been running my business FAR Cabinet Makers for five years now. I am based in Fife just outside of Crail.

I make bespoke furniture to order and hollow wooden surfboards. Surfing was a hobby and after seeing a wooden surfboard it just made sense to incorporate it into my business. So I learnt how to build them and now make them to order and run 3 days courses.

It has been a steep learning curve, I was only 22 when I started and had no idea of how to run a business. But 5 years on I have all those hiccups behind me and things are going well. I now have my workshop fully kitted out. I have slowly upgraded machinery over the years and now have everything I could need and am now starting to run out of space, so the next thing will be a larger workshop when the right place comes along.

Some of my most recent projects have included a side table, a boat styled coffee table and making a surfboard from 200 year old scots pine beams.

The reclaimed surfboard from 200 year old scots pine beams was a great project. It was filmed for a BBC children's TV show and will air next year. I was asked if I could make a surfboard from reclaimed wood but they were struggling to find anything suitable. There was a farm down the road from my workshop being renovated and they were going to burn all these old beams. I asked if they were available and the owner was glad they were going to be put to good use as they had no use for them, so I was able to take the whole pile. Once the beams were de-nailed and the woodworm areas cut off, the wood was still in fantastic condition.

The boards are built around an internal frame like an aeroplane wing. The internal frame dictates 90% of the board's shape and is computer generated for accuracy. This is the most important part as any twist or inaccuracies in the frame will affect its performance in use. The outer frame is milled to 7mm thickness for the top and the bottom deck. The rails are built up in strips, each strip milled with a bead and cove profile so they interlock. Building using this method allowed each strip to be angled and allows me to build them up over a curve creating the rounded rail. Once the top deck is on and the board shape refined the board is sealed using fibre glass and epoxy. This is then sanded



and can be polished up to a high gloss finish. It was fantastic to use these beams and see the transformation from what was considered firewood to a usable surfboard. The scots pine was a little heavier than cedar or paulownia that I usually use to make boards from but not by much.



Written by,
Frazer Reid
 FAR Cabinet Makers



FROM MIGHTY OLD OAKS TO GREAT DANCING IN KNOYDART

Knoydart Forest Trust's decision to fell one of the resplendent oaks on Knoydart was made with a heavy heart but the plan to ensure the timber went on to provide a legacy for the community eased the blow.

The "Larder Oak" was planted by the Victorians around 150 years ago in the Policy Woods in Inverie and was a regal beauty. However, it stood within striking distance of the community owned powerline and deer larder and had been showing signs of decline for several years - the crown started shedding major limbs causing damage to the powerline and deer larder. Despite the various mitigation efforts to keep it standing, the risk to the powerline and the larder became too great. So, in 2014 the Larder Oak was felled by Knoydart Forest Trust's foresters - the branch wood was cut and dried for firewood and the stem was stored until the community identified a fitting use for the timber and the time was right to mill and process it.

- larder oak before (Lorna Schofield)



- milling larder oak (Lorna Schofield)



- ripping larder oak logs (Lorna Schofield)



- kft kiln (Lorna Schofield)

Although not old in comparison to the Larder Oak, Knoydart Community Hall built in 1959 was also in decline and in dire need of an overhaul to create the space that is needed by the community. Redevelopment plans came together in 2017 and the perfect legacy for the Larder Oak was found - the new dance floor in the refurbished Hall.

We were fortunate that the timing was right to secure support from Forestry



- larder oak stack (Lorna Schofield)

Grant Scheme's Harvesting & Processing - secondary processing grant to purchase the new equipment that we needed. We hope the new floor will be a great advert for our timber products.

And so the work began! While the community pulled together on an epic fundraising campaign, we began to prepare the timber. We cross cut the stem into 3 logs 2.5m long (the butt was over 1.2m diameter) and then with help from Keith Threadgall (and his "big sa" pronounced sah) ripped the 3 logs into half rounds so they would fit on our Woodmizer LT40HDD mill. We milled the half rounds into 6" x 1" boards that are currently air drying, as recommended for oak, for 6 months prior to drying in our new Sauno VT5 kiln (installed in a 4x2.2x1.2m insulated box inside a 20' lorry back - metric-imperial mix thanks to Grant Holroyd!).

Once the timber has been dried we intend to plane and mould the boards into tongue and groove flooring on our Logosol PH260 and then mould tongue and groove onto the end grain on our new MF30 vertical milling machine to make the finished floor for the

Hall. Milling the end grain will allow us to produce boards to random lengths in this way maximising the output of each board. After that our next big learning curve will be the construction of a sprung dance floor (any experience out there?).



- crazy dancing knoydart style (Lorna Schofield)

There's still a way to go...for us in creating the dance floor and for the community to reach the fundraising target needed to make the refurbishment happen. If you would like to support the Knoydart Community Hall Refurbishment and find out more about what is happening please visit www.knoydarthall.com and/or find us both on Facebook.



Written by,
Lorna Schofield
Knoydart Forest Trust





— Hut from the south east (Peter Caunt)

ELAINE'S HUT

Quercus built a house for Elaine Robinson near Coldingham in 2007. She came back to us to design and build a hut for her in 2017.

Huts in Scotland are enjoying a renaissance since the Hut definition was enshrined by the Scottish government in 2014 and Reforesting Scotland published their Good Practice Guidance on the planning, development and management of huts and hut sites in 2016. This has been followed up by RS with a Good Practice Guide to hut construction in 2018.

We made a planning application with a full supporting statement in May and it was approved in June, showing that the officer was aware of the hut movement and what it was all about. This is the first individual hut to be given planning consent under the new policy. We had no lengthy and expensive reports to do such as tree surveys, flood assessments and ecology studies which have bedevilled other

applications. We only had three conditions, that we should follow the plans submitted, the hut should not be a dwelling house and the stove flue should be black.

The site is on a piece of land owned by Elaine south of Newcastleton where she grazes her horses. There are a number of small plots in this area that were allocated to the inhabitants following the land clearances of the 1790's. Looking for low impact and cheap foundations, we chose to engage her neighbour Wille and use his chapper to drive posts into the soft clay, there are six for the hut, three for the deck and six for the composting toilet. The posts are fence stobs and the whole exercise was completed one day in August. These were halcyon days with firm ground that disappeared with the autumn rains as the access turned into a quagmire. Portage of materials was an issue with an hundred metre walk in from the land rover and trailer. Even this part of the track became unsure in the worst weather with on one occasion a tractor sought to pull a heavily laden vehicle out!

The design of the hut is a Douglas fir post and beam structure with prefabricated insulated panels for floor walls and roof. The insulation is sheeps wool from Cumbria. The roof is black corrugated steel sheeting and the walls vertical batten on board larch cladding. The timber was from Abbey Timber who gave us a very good turnaround time of six weeks from confirmation of order to delivery. For an Architect the luxury of being able to choose section sizes to optimise the use of timber is wonderful. However, Abbey were keen to push us towards standard sections. These are basically multiples of 25mm for rough sawn and slightly less for planed timber. There is a discipline in preparing drawings of sufficient detail, from which cutting lists can be accurately prepared, and making a programme with adequate flexibility allowed for lead times. The longest of these was a window manufacturer who required twelve weeks. We tackled these issues with a relaxed timescale that dovetailed time at home and on site. The prefabrication of components and order of materials was at the Quercus yard in Heriot with short weeks of three days including overnight stays in Newcastleton assembling. Working through the winter was a challenge with cold conditions and short days but by last minute planning we at least avoided the rain.

The panel construction uses merchant timber as it is all concealed and was easily obtained on a daily basis. With the ubiquitous OSB as sheathing the panels provide the racking strength necessary for the structure. Internal lining was birch faced plywood sheets reused from a dismantled building. Main doors onto the deck are salvaged from a home office that blew away. Two lessons here, check that buildings offered can withstand Scottish conditions and for our hut don't assume big savings from second hand materials. By the time we had upgraded to double glazing, installed three point locking and rehung the doors the saving had evaporated.



- Levelling the foundations (Peter Caunt)



- Frame pre-fabrication at Sunnyside (Peter Caunt)



- Driving the piles (Peter Caunt)



- Frame with temporary bracing (Peter Caunt)

The span of the three main timber frames of the hut is 3 metres and the length internally 4.3 metres. This size of 13m² is much less than the maximum size of 30m² allowed for huts but is surprisingly roomy for one person. It is augmented by a bed platform of 5m² that has wonderful views through the glazed gable to the English border. The generous deck is partially covered by a canopy and has a sink fed from a roof water butt. Decking is one of Abbey Timbers' larch profiles and they also supplied the Ash Flooring for the bed platform.

The deck faces just off south and benefits from sun for most of the day. Passive solar gain as well as the beauty of sun in the interior of the hut has to be the goal of any hut design. This is precluded by the shade for those deep in the forest, but other strategies can be used there, such as rooflights and framed views. In this case a plantation of Sitka lies to the west which is being judiciously thinned to allow some evening sun whilst retaining its shelter provision.

The hut relies on a wood stove for heating and cooking. The small hobbit stove from Salamander is more than adequate for the purpose and it was a great celebration when this was lit just before Christmas. Stove installation is one of the critical things

in a hut to get right. It has a grey limestone hearth of adequate dimensions, correct distances from the wall, and with a heat shield of fibre cement behind the exposed section of flue. There is a battery-operated carbon monoxide alarm in case incomplete combustion occurs. Another nightmare for the builder is the occurrence of leaks. The flue penetrates the roof near the eaves, a position less easy to flash than near the ridge. After close attention to various YouTube videos, we installed the boot flashing provided and so far this has worked!

- Composting toilet (Peter Caunt)



- Lighting the stove (Peter Caunt)



- hut in winter snows (Peter Caunt)

We had experience of using photovoltaic kits meant for campervans and boats when we built an off-grid volunteer hut in Haddington. With just one 750W panel, a controller, two gel batteries and an inverter, the system at Elaine's hut has proved very effective. A consultant electrician advised that if we installed 12V DC equipment, which here includes all the lights and a USB charging point for devices, it was safe for DIY installation. The 240V AC circuit is a bit of a luxury therefore, although it is convenient to plug in one's domestic appliances like hoovers.

With the desire to be off-grid in terms of services, and to avoid foul waste water, which would have to be regulated by the local authority, composting toilets are seen as the natural companion to huts. The design in this case was for a separate building with a raised seat over a chamber. One has to be seated and this allows the urine separator to work. There is a vent pipe to remove moisture and the walls of the chamber are made of straw retained by two skins of chicken wire leaving the material in the chamber dry and odourless. With a low level of usage the chamber is expected to last several years before it requires emptying.

There has been much debate about the cost of huts, and for many enthused about the prospect of an occasional shelter in the countryside, the expectation is that this will be next to nothing. For the person able to access second hand materials and discount the many hours they spend building, a hut could be cheap, however, for the mainstream, there is little difference in construction cost to that of a house. The main areas of saving will be on services not required for a simple hut, on decoration and finishes and the fitting of bathrooms and kitchens. A copper bath in front of the stove and a second-hand sink for the preparation of vegetables and subsequent washing up obviously are much simpler! For Elaine's hut, we had figures of £750/m² for materials and £950/m² for labour giving a total of £1300/m² for an all-season hut built for you. This would reduce considerably for a summer only hut. It would also reduce for a larger hut, probably to below £1000/m². On top of this there was about £7500 of extras which include the PVs, stove, toilet, some decoration, finishes and a balustrade around the deck as a pen for the dogs, Eric and Belulah.

The hut is very much as Elaine wanted it, and she intends to spend a lot of her time there. The colour scheme makes the interior a warm comfortable space and the surrounding land is recovering from the winter invasion of builders feet with her planting getting hold at last. A nice touch is the bat boxes fixed to the gable, a reminder that you are never alone in the woods.



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ARCHITECTS AND ASHS

Architectural organisations in Scotland

How relevant are they for ASHS members?

It might be useful to start with what an architect actually is. To call oneself an architect one must be registered with the Architects' Registration Board (ARB). This applies to architects throughout the UK. If someone uses a derivative of the word architect, such as 'architectural technician' you can be pretty sure they are not a qualified architect. A qualified architect has completed seven years of training and must have, among other things, professional indemnity insurance.

The Royal Incorporation of Architects in Scotland (RIAS), founded in 1916 as the professional body for all chartered architects in Scotland, is the main architectural institute in the country. It has 5,200 members and it offers a range of services for architects, students of architecture, construction industry professionals and all those with an interest in the built environment and the design process. It organises various events around Scotland, but mostly in the central belt, and in particular in its headquarters in Rutland Square, Edinburgh - a gift from the Scottish architect Sir Rowand Anderson. The RIAS is an incorporation of its six chapters (regions) around Scotland - Aberdeen, Dundee, Edinburgh, Glasgow, Inverness and Stirling.

There are also small regional networks of architectural practices such as **Edinburgh Chartered Architects Network (ECAN)** based within the Lothians and Fife and the **Borders Architects Group (BAG)**. Members of these groups are predominantly smaller practices or sole-practitioners, but not exclusively. They meet on a regular basis to exchange ideas and information of current interest in the design and construction profession. They often invite speakers to give CPD presentations and occasionally make site visits.

Recently there has been some dissatisfaction with the RIAS and a new independent association of **Scottish architects - A New Chapter** - was established last year with the aim of reforming the RIAS. They are working for greater transparency, accountability and





- The Engine Shed (HES)

a new progressive future for the RIAS. The RIAS council has already agreed in principle to a series of changes in how it operates.

Members of **The Scottish Ecological Design Association (SEDA)** are the group of architects and designers who are most likely to be interested in sourcing wood from ASHS members. Founded in 1991, its members share knowledge, skills and enthusiasm of ecological design. SEDA currently has around 400 members all over Scotland with a small number in England and Wales. Members include academics, architects, artists, builders, planners, landscape designers, and others whose work or interest is concerned with design for a sustainable future. SEDA organises seminars, lectures, workshops and site visits to projects which have an ecological approach to design and living. It also commissions research, evaluating and setting standards for ecological projects and products. It has representatives on government panels which it advises on

sustainable design. One of my highlights of the year is the annual SEDA conference - usually held over a weekend and often in a rural part of Scotland, such as our 2016 trip to Cultybraggan Camp, near Comrie - the last remaining WWII prisoner of war camp in the Scotland.

Architecture and Design Scotland (A&DS) is an executive Non- Departmental Public Body (NDPB) set up by the Scottish Government in 2005. Its principal focus is on implementing Creating Places - Scotland's Policy for Architecture and Place. In particular it helps communities to shape the places that matter to them. A&DS focuses on schools, health care facilities, town centres and regeneration schemes with a particular interest in sustainability. The organisation holds exhibitions and events aimed at getting communities engaged with the building process, mostly in Edinburgh, where their headquarters is based, and Glasgow, in particular in the lighthouse.

Led by Dr Daniel Ridley-Ellis, the **Centre for Wood Science & Technology** is part of the **Institute for Sustainable Construction at Edinburgh Napier University**. They focus on understanding the physical and mechanical properties of wood and how these affect its performance in different applications. Although ASHS members will probably be aware of this institution due to their connections with the Forestry Commission and their support of the UK forest and timber industries, the centre also advises architects and other professionals involved in the building industry. I had useful advice from them when researching whole tree structures used in one of my nursery buildings, as described in a previous issue of The Full Circle.

Peter Wilson, managing director of Edinburgh-based **Timber Design Initiatives (TDI) Ltd** focuses on the innovative use of wood in architecture, design and the construction industry. Through collaborations between academia and industry, they seek new and creative ideas that have the potential to be used more widely.



- Cultybraggan Camp

The Lighthouse, Scotland's Centre for Design and Architecture

is the largest visitor centre, exhibition space and events venue dedicated to design and architecture in Scotland. Formerly housing The Glasgow Herald in Glasgow, The Lighthouse was the first public commission by Charles Rennie Mackintosh. The building, designed in 1895, was a warehouse at the back of the printing office of the Glasgow Herald. Mackintosh designed the tower - a prominent feature of the building - to contain an 8,000-gallon water tank to protect the building from fire.

Page & Park Architects oversaw the conversion and extension of the building to a new centre for architecture and design. The centre opened in 1999 and has, since 2010, been managed by Glasgow City Council.



There are many organisations concerned with the heritage of Scotland, the most influential being **Historic Environment Scotland (HES)**. Another Non- Departmental Public Body, HES oversees the management and protection of Scotland's heritage. It became fully operational at the end of 2015, amalgamating Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS).

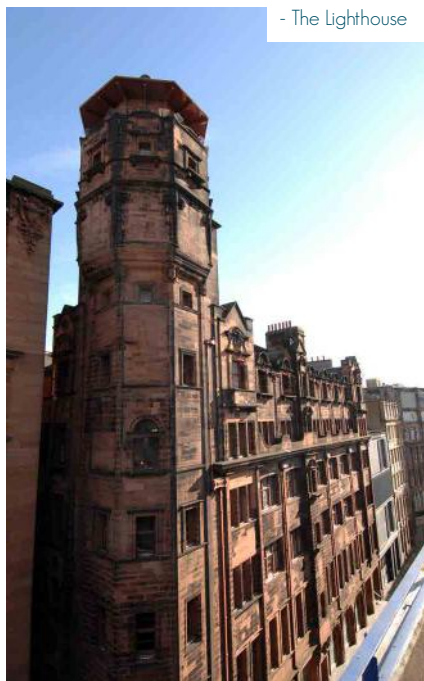
Based in Edinburgh's south side, HES advises on historic building matters and has a statutory role in determining applications affecting buildings which are listed or in conservation areas. In addition to being responsible for the listing of buildings, it offers several grant schemes, provides technical advice, and is responsible for looking after historic properties, including ruined castles and palaces, in the nation's care.

The archives, online and on site, (formerly maintained by RCAHMS) provide unique insights into Scotland's buildings and places, documenting how the nation's archaeological, industrial and architectural environment has changed over time.

HES recently completed the stunning new building - The Engine Shed in Stirling, designed by Reiach & Hall Architects - Scotland's first Building Conservation Centre. It is the conversion of a former train transfer shed that was part of an important military complex - the strategic base on the banks of the River Forth was a key resource for the army for both World Wars. It has been turned into a national centre for research and development into traditional building methods and runs various courses about the conservation, repair and maintenance of Scotland's built environment. It is well worth a visit if you are in Stirling.



- The Lighthouse



Charitable organisation, **The Architectural Heritage Society of Scotland (AHSS)**, is also dedicated to the study and protection of Scottish architecture, organising lectures and study tours, social, cultural events and publishing relevant studies. Founded in 1956, AHSS has over 1,000 members and volunteers with six regional groups across Scotland.

Scottish Scenic Routes is a programme overseen by **Construction Scotland Innovation Centre**, A&DS and Visit Scotland that aims to improve the country's tourism infrastructure and visitor experience by building innovative and beautiful structures along some of Scotland's most scenic driving routes, including the popular North Coast 500. The projects enable younger architects and designers to demonstrate and prototype new construction techniques, which is another possible connection to ASHS members.

Specifying locally-sourced wood is rarely even on the radar screen for most Scottish-based architects. Were ASHS to actively engage with some or all of these organisations, either at a national or local level, it could well lead to a greater awareness among architects and designers of the merits of using locally sourced wood.



Written by,

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GRADING OF BRITISH TIMBER

The physical and mechanical properties of wood vary hugely - not just between species, but also within species, from forest to forest, between trees in the same forest, and even within a single tree. For structural timber, certain key properties need to be assessed in order to ensure building safety, and economic use of the material. The means by which this is achieved is known as "strength grading", and sometimes by the old terminology "stress grading".

In the UK, structural timber is graded under the system set out by the harmonised European standard EN14081. It sorts rectangular cross-section timber into grades based on requirements for three primary grade determining properties. For normal construction timber those are bending strength, bending stiffness and density. The reference moisture content for these properties is 12%, irrespective of the moisture content at which grading is carried out. Strength and density are specified as fifth percentiles and stiffness by the mean - these are known as the characteristic properties, and are probabilistic descriptions rather than properties of any single piece of timber. This way of expressing properties fits to modern design codes like Eurocode 5, and is a different way of expressing properties from the old permissible stress design codes like BS5268, and old books. Nevertheless, the basic principle of grading remains the same as it has been for decades.

There are two parallel systems for grading: visual and machine, both of which follow the same fundamental basis: timber is sorted into grades according to a non-destructive assessment that is predictive of the grade determining properties. The collective characteristic properties of the timber sorted into those grades determines the strength class. A strength class is simply a grade with associated numbers for strength, stiffness and density that can be used in design. Strength class is usually specified with reference to EN338 (e.g. C16, C24, D24 and D30), but properties can be declared directly, or by means of a user-

- strength testing (Dan Ridley-Ellis)

defined strength class. Remember, those numbers describe populations of timber (the timber sorted into that grade) and not individual pieces. Grading therefore depends not just on the grading rules or machine thresholds, but also the population prior to grading. This is why it is not allowed to visually grade timber rejected by machine grading, because the machine grading changed the original population by removing the better pieces from it. A number of additional "visual override" checks are needed to cover things like drying distortion and fissures. It is whether those are carried out after drying that determines whether timber can be described as "dry-graded". A more detailed explanation of strength grading can be found in [1].

Visual grading is carried out according to grading rules that are usually (but do not have to be) national standards (like BS4978 for softwoods and BS5756 for temperate hardwoods). Assignment to a strength class is specific to a combination of grading standard and timber source. The assignments for UK grown timber are all quite old, and not all of them are listed in the European standard EN1912. It covers British spruce (Sitka and Norway spruce), British pine (Scots and Corsican pine), larch (European, Japanese and hybrid), and Douglas fir.





painting logs to study radial trends in wood properties (Dan Ridley-Ellis)

The ones for large cross-section Douglas fir, oak and sweet chestnut are instead in PD6693, which is merely a published document from BSI. There is no reason, other than cost, that prevents new test data updating these grading assignments, or adding assignments for other UK grown timber, but with the new generation of portable and lower cost grading machines it may well make more sense to use a machine assisted visual grading process to improve yields and assignments. Slovenia has recently introduced a simple grading machine based on a tablet computer and microphone, which measures the note (frequency) a piece of timber makes when struck with a hammer. This is essentially all that acoustic machine grading involves, and since this is a kind of measurement of the timber's stiffness it is usually a more powerful grading predictor than knots, ring width and slope of grain. While the density also affects the frequency at which the piece of timber vibrates, the overall density of the piece is usually a much less useful indicator of timber quality than the stiffness.

Most machine grading of timber in the UK is now done with x-ray machines, which measure wood density in detail as well as

the size and position of knots. The machines are much faster than the old bending-type machines, which worked by measuring the timber stiffness in mechanical bending (not by proof loading). But modern grading machines more commonly measure stiffness by the acoustic vibration method, allowing them to be much smaller and simpler. There are now many kinds of grading machine, including ones that work on other principles such as slope of grain, but only a few have settings approved for UK-grown timber (see [2] for a list of visual grading assignments and machine settings, including those for the portable grading machines Brookhuis MITG and Microtec viscan portable).

Work at Edinburgh Napier University has been ongoing for about 15 years, assessing the key properties of home-grown timber and, where there is sufficient quantity of data, establishing grading settings. The most recent work covered larch and Douglas-fir, with thanks to NUI Galway and the DAFM funded "WoodProps" project for new data to support the latter.

The characteristic (5th percentile) density of ungraded UK-grown larch ranges from about 400 to 420 kg/m³. Characteristic (5th percentile) strength ranges from about 19 to 22 N/mm², and mean stiffness ranges from about 9 to 11 kN/mm². It is actually the stiffness that tends to limit the strength grading, but larch can achieve C20 or C22 as a single grade with minimal machine reject. With the right grading machine, yields of about 30% C27 with 70% C16 and minimal machine reject are achievable. Grades of up to C35 can be achieved in small amounts. Density is the least critical property and even ungraded it is higher than the C40 requirement, but is only weakly correlated with strength and stiffness (R² is about 0.2). Visual grading to BS4978 assigns larch to C16 (GS) and C24 (SS).

Home grown Douglas-fir (*Pseudotsuga menziesii*) (PSMN) is, overall, quite similar in properties to UK larch, but is much more variable from stand to stand and this variability requires the grading to be more conservative. This variability also causes the characteristic properties of the ungraded timber to be very low, although they are quickly improved by grading. The characteristic density of ungraded UK-grown Douglas ranges from about 360 to 450 kg/m³. Characteristic strength ranges from about 10 to 25 N/mm², and mean stiffness ranges



- visual inspection of timber during machine grading (Dan Ridley-Ellis)

from about 8 to 13 kN/mm². For Douglas it is the strength that tends to limit the grading and, ungraded, it does not meet the requirements even for C16. However, because the characteristic strength can be quickly increased through grading, the machine yield of C18 as a single grade is about 95%. With the right grading machine, yields of about 65% C24 with about 25% C16 and about 10% machine reject are possible. Grades of up to C40 can be achieved in small amounts. Again, density is the least critical property, and while lower than Douglas-fir grown in Europe it is, when ungraded, at worst, higher than the C27 requirement. Visual grading to BS4978 assigns to C14 (GS) and C18 (SS), or C24 (SS) for large dimensions. The variability in the population means the correlation between strength

and density is quite high (R2 about 0.5), but can be non-existent within a batch of timber making density alone a poor practical indicator of timber strength and stiffness.

[1] Ridley-Ellis D., Stapel P. and Baño V. (2016): Strength grading of sawn timber in Europe: an explanation for engineers and researchers. *European Journal of Wood and Wood Products*, 74 (3): 291-306. <http://researchrepository.napier.ac.uk/output/169717>
 [2] Ridley-Ellis D. (2018): Strength grading of timber in the UK in 2018, *Timber 2018*, Conference of the Wood Technology Society. <http://researchrepository.napier.ac.uk/output/1248720>



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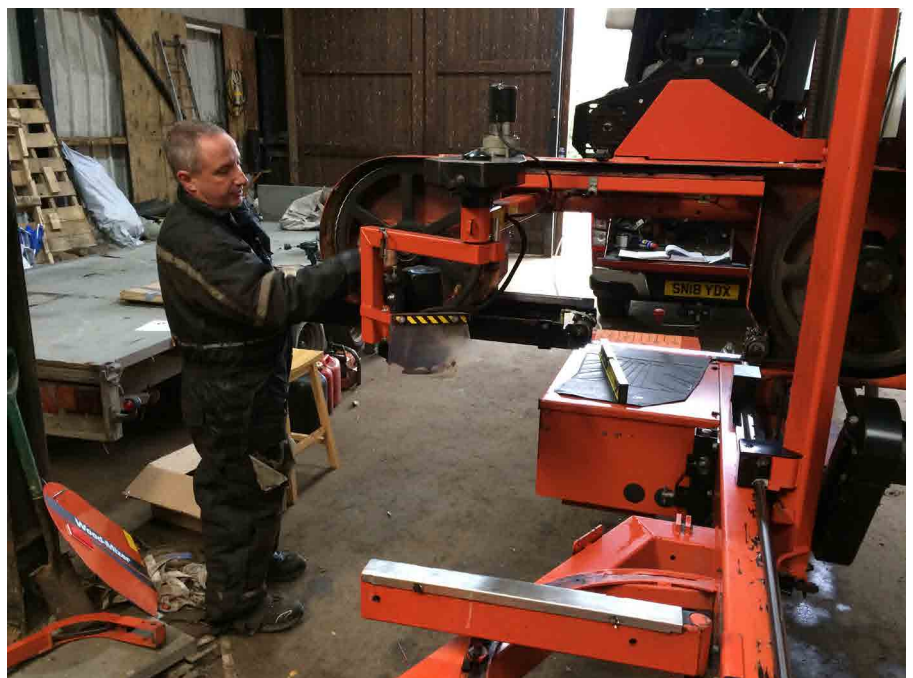
AN INTERVIEW WITH KEITH THREADGALL – MOBILE SAWMILLER

I interviewed Keith in the office at Angus and Mack, after a day's sawing sycamore logs for the almost-complete solar kiln. He donated his time towards this project, which needed a test batch of planks to assess how it operated.

He had been away from home for 4 days that week, leaving at 5.30 on Monday morning and sawing at several sites in Dumfries and Galloway and Ayrshire. Friday was at Angus and Mack and Saturday at two sites in Edinburgh and East Lothian. He doesn't sit still!

How did you get into sawmilling?

I first worked as a tree-felling contractor. In 1999 I was approached by Woodschool to operate their Woodmizer LT30 sawmill on a part-time contract basis. It was originally static in the open until we got a shed built in 2001. Frank Gamwell trained me and I started contract mobile sawmilling business for Woodschool. I milled for tree surgeons, estate owners, farmers, and sawmills like Falkirk Wood, although that probably accounted for only 25% of my time, with the rest sawing wood for the in-house makers.



In 2009, Woodschool closed down and Real Wood Studios was set up to take over its functions, with myself and five furniture-makers. I carried on milling, but took on timber sales and operating the kilns. Things got busier and in 2010, RWS bought a Woodmizer LT40, which they still use.

In July 2015, I set out on my own, doing mobile contract sawmilling as Keith Threadgall Sawmill Services. I had already been Woodmizer agent for South Scotland and North-east England since 2010, and in 2013 I was asked to cover the rest of Scotland.



What do you do now?

Nowadays, I spend my time contract sawing, demonstrating the Woodmizer at shows and other events, servicing, selling and repairing Woodmizers around the country and training owners how to use and maintain them. In winter (my busiest time of year) I'm also a tree-planting contractor.

What do you like/dislike about the life of a mobile sawmiller?

I like travelling about the country - seeing new places and coming back to interesting locations. I don't like bad weather - wet, cold and windy weather when there's no shelter. I like it when customers look after their sawmills and clean them before I do maintenance work on them. Dirty timber is unpleasant to cut and bad for the mill and especially the blades. Customers really need to have a forklift to bring the logs to the Woodmizer and a couple of labourers to lift, clean and stack the cut planks. A few customers have unrealistic expectations of how much I can cut in a day - but in reality a well-organised customer can make a lot of money from a day of me milling their logs.

What changes have you have seen?

Most of the old-fashioned local and estate sawmills have gone, although more and more estates are now buying mobile sawmills.

The big sawmills have become ever larger, and now often only cut a narrow range of species and log sizes - meaning that there's room for the small and mobile mills producing bespoke sawn timber.

Health and Safety has become so much more important. The old dangerous mills are being replaced with much safer mobile mills and now many can be operated remotely - from a work station a safe distance from the saw blades. Dust extraction is becoming increasingly common, even on mills operated outside, for employees' health and also because it saves time on cleaning up sawdust.

The balance of hardwoods vs softwoods that I mill has changed - originally it was about 85% hardwoods (especially elm) and 15% softwoods; now it's more like 50:50, with lots of Larch and Douglas fir in the mix.

What would make the industry better?

The current high timber prices are causing problems for sawmillers and timber users, although I've never been busier.

If someone wants to hire a mobile sawmiller to cut their logs, what would your advice be?

Lay out your logs on level, hard standing beside the sawing area. Keep them clean. Allow plenty of space for the sawmill and for moving timber about. Make sure you have a tractor with forks or a forklift to move logs about and one or two labourers to move the sawn timber and slabwood.



Written by,

Nick Marshall
ASHS Coordinator



Reforesting Scotland



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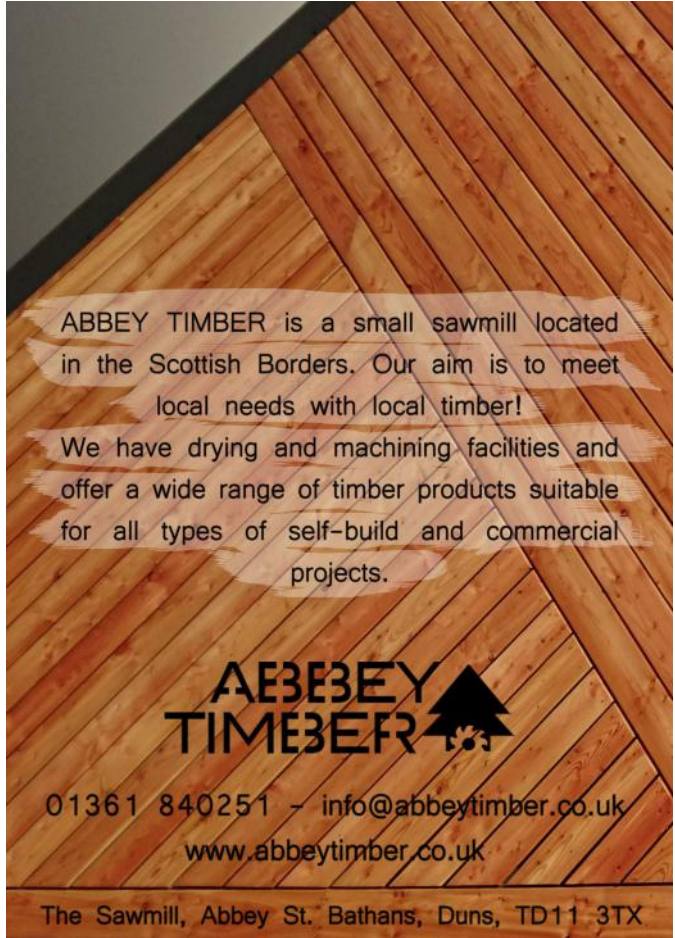
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