WOOD focus

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The magazine of the Institute of Wood Science

Fifty Years!

by J D Brazier FIWSc

This is a shortened version of ***The Institute over fifty years*** *appearing in the Winter 2005 issue of the Journal of the Institute of Wood Science.*

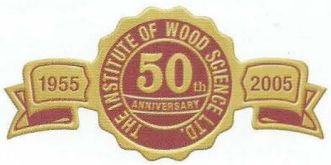
The Institute of Wood Science is fifty years old on 30th November, 2005. It was formed by a group of timber enthusiasts, many from the trade, who, in the mid-1950s, recognised that if timber was to compete effectively with other materials, there must be a better understanding of the technologies involved in its production, processing and use. It was at a time, too, when there were dramatic changes in timber supply, innovation in timberr use, and the introduction of new timber products. All in all, there was much to be known and a clear need for an organisation to encourage and support the advancement of knowledge. This was, and continues to be, the primary purpose of the Institute.

Prior to the formation of the Institute, there were courses in timber technology, available as evening classes at technical colleges throughout the country, to syllabuses provided by the Timber Development Association (the forerunner to today's TRADA). As the IWSc became established, it took over responsibility for these courses - not their provision, which remained with local authorities, but their content and the award of a qualification to candidates on completing a course, passing an examination, and, where required, the submission of a thesis. In 1969, with the creation of the Furniture and Timber Industries Training Board (FTITB) and implementation of a statutory levy, which could be offset by the provision of training, course provision was by block- or day-release at local authority colleges. This continued for a decade until, in a changing political climate, the FTITB was abolished. Thereafter, training provision was the responsibility of employers but, in a harsher competitive and economic climate, there was a significant reduction in the numbers attending courses. With falling rolls, colleges were no longer prepared to provide courses and a new strategy for training was essential. The Institute met this by providing, in 1992, a modular course for within-company training, with the support of training providers. This was a significant change for the Institute for, from being an arbiter of performance, it also became a provider of course material on which performance is judged.

This is a situation which continues today, with the Institute providing learning material at three levels: a Foundation level, introduced in 2001 and particularly popular, with some 1000 candidates having enrolled over four years; a newly restructured and updated Certificate course, with options to meet special interests; and an advanced, Associateship course.

But course provision is not the only way knowledge is advanced or exchanged. Branch meetings were, for a time, a feature of the Institute's activities and, though these have now ceased, an Annual Conference is attracting ever more support, both from the membership and from companies and associations. The Institute's publications, the Journal of the Institute of Wood Science, published continuously since 1958 and long recognised as a leading journal in its sphere, and Wood focus, the latest in a series of newsletters, communicate new developments to members.

But an Institute is essentially an association of people having a common interest. From modest beginnings, numbers grew rapidly, reaching a peak of around 2000 in 1980. Today, there are 840 members but a comparison of figures should be made with care as they reflect, on the one hand, structural changes in the commercial and scientific communities, and, on the other, current systems for recording membership. Numbers alone do not reflect the vitality of the Institute, nor of its role which, today, is quite as important and, arguably, more so than when it was formed. It is ready to meet the challenges of the next fifty years!



CORPORATE MEMBERS

The Council of management wish to record its thanks to those listed below for their support as Corporate Members:

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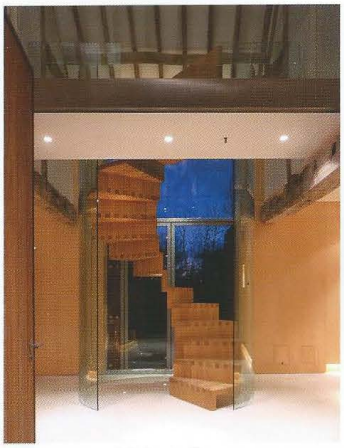
Skill wins the 2005 Wood Awards

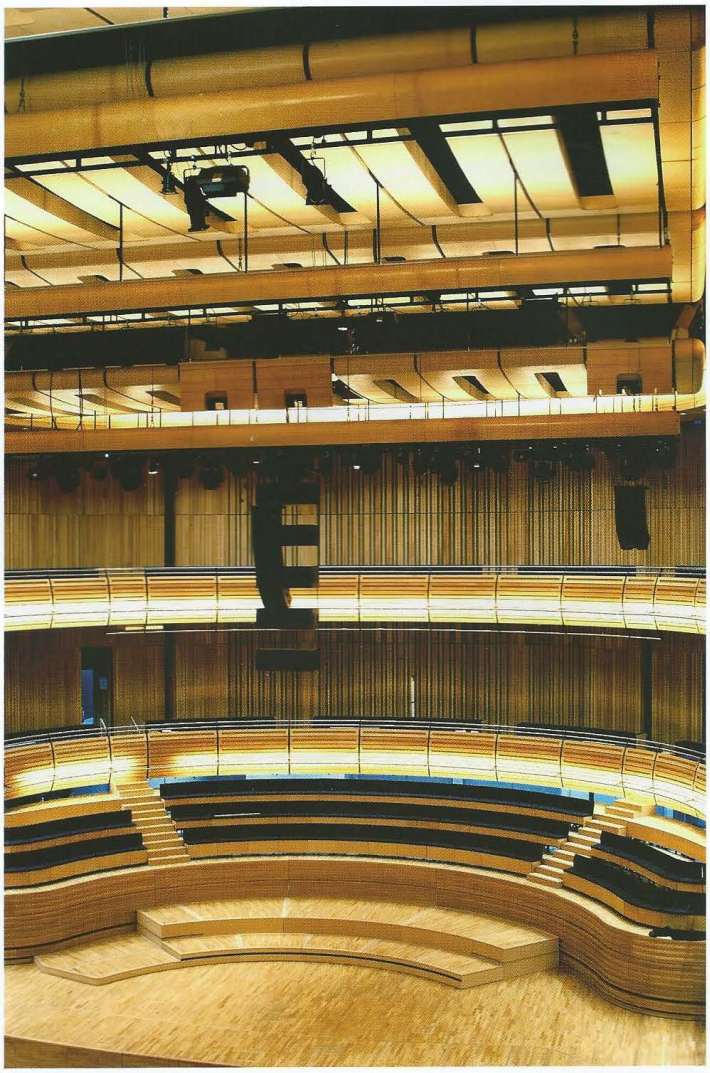
"The collective skills of joinery and woodworking companies has come out on top of this year's Wood Awards" says organiser Michael Buckley. "Whether the building is a cultural centre of national importance by a leading architectural practice or simply a converted country home, it is the sheer quality of workmanship that has shone through in all the four main winning projects."



Pinions Barn

The Gold Award this year has been won by a contemporary barn conversion "Pinions Barn" in Northamptonshire designed by Simon Condor in the Private Category. As runner up last year, this demonstrates a consistency by his practice that is exceptional – given the high quality of all the entries. "Our contractor had run a high quality joinery shop for many years (and personally laid the oak floor) which made a great contribution to the success of the project and explains the quality of this conversion" says Simon. Highly Commended in the Private Category was a little development, Carlisle Lane Lofts in London's Waterloo area which the judges regarded as "An interesting, well executed project that will provide very comfortable first homes. The system uses a lot of wood but with current acoustic regulations this is a good way of complying"

New to the awards this year is Best Use of British Timber which has been awarded to the winner of the Structural Category, Pilton Barn – this one a post-fire restoration by Peter McCurdy of Globe Theatre fame. The judges considered the barn to be "a superb example of workmanship backed up by detailed research. To work on timbers the size of the ones used here, and to maintain the tolerances that they have, is a testament to the carpenters involved." The Serpentine Gallery Pavilion designed by Arup was Highly Commended in the Structural Category.

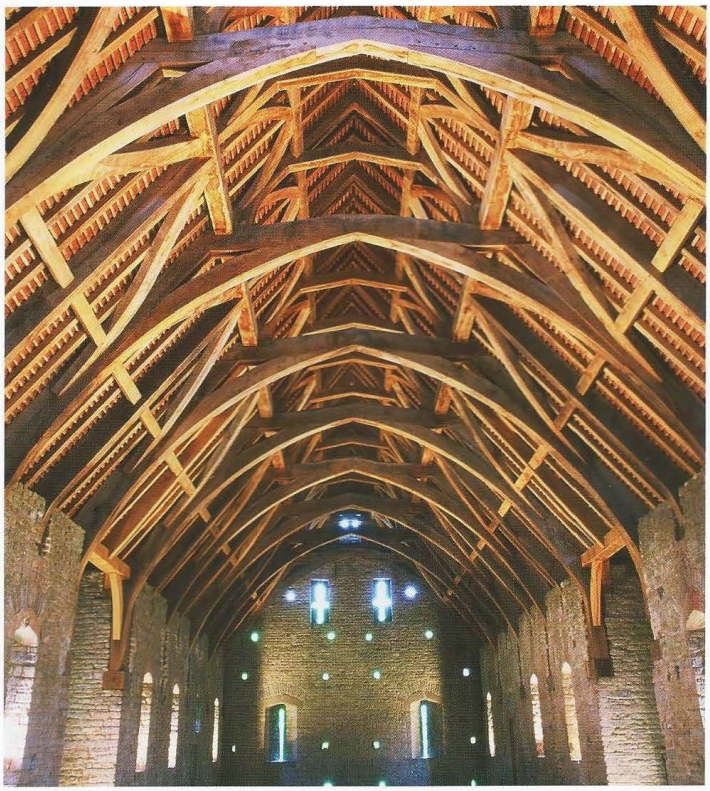


Foster's Sage Gateshead

In the Commercial and Public Access Category two northern projects are celebrated. Foster's Sage Gateshead won the category, because in the opinion of the judges "The detailing is such that the very complex surface needed for the acoustics does not seem to be complicated, but rather neat and clean. The main auditorium is a delight and the choice of wood, ash, gives a fresh open feel and makes the space one that is a pleasure to be in." Maggie's Centre in Inverness was Highly Commended in this category, which is "a very comfortable building to be in and the quality of the workmanship was generally high."

The restoration of Christ Church, Spitalfields drew very high praise from the judges in winning the Conservation/ Restoration Category:

"It is evident that a very high level of



Pilton Barn

workmanship has been used...great attention to detail had been taken. A very high quality piece of work of which all concerned can be proud. This is one of the most impressive pieces of architecture in London and has been extremely well restored...The quality of the finish is superb. The joinery works carried out... have been a key part in recovering Hawksmoor's original design and making sense of the building's volume " .

The Staircase House in Stockport was highly commended for "the great efforts made to retain original fabric, conserve material as found and to piece in new material where this was found to be missing or beyond economic repair...The extend of works is heroic and represents a great achievement for Stockport and all involved."

Also awarded this year, at the judges discretion, was a Small Project Award won by the New Summerhouse of Sybil and David Caines which the judges described as "an exemplar of high quality design." A Highly Commended award was also made to the new lychgate at Sefton Church in Lancashire. "The workmanship is of a high level. What is quite clear on close inspection is the loving care that has gone into carrying through this project with smoothly curving tapers on the centre column, which is very difficult to achieve, and tapers on the outer timbers to give overall a very elegant expression of a very simple gate -- a beautiful little gate" the judges said.

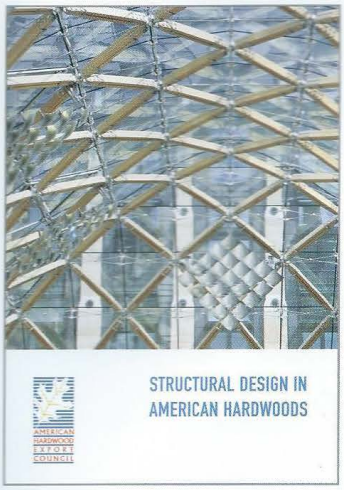
Sefton Church lychgate.

All in all, 2005 was another year of record entries and spectacular quality of work for the Wood Awards.

All photographs courtesy of the Wood Awards

Christ Church Spitalfields

Structural Design in American Hardwoods
New Research Published



After four years of research and development, the American Hardwood Export Council (AHEC) has launched a publication of technical detail for structural design in four American hardwood species. The text has been written by Andrew Lawrence and Peter Ross of Arup based on research undertaken by the Building Research Establishment (BRE). It covers Eurocodes and national standards and gives new information on strength, classes and species properties previously unpublished. The publication also provides information on the environmental credentials of the species and gives detailed design examples and references award winning projects.

The four American hardwood species – white oak, red oak, tulipwood and ash – were independently tested by BRE at their Garston UK laboratories, the procedures for which are outlined in the 20 page publication. AHEC commissioned BRE to undertake testing to determine their characteristic values for structural design, ensuring that the full range of species variations were taken into account. Tests were carried out in accordance with EN408 and resultant data was subject to adjustment under EN384 to provide the full set of characteristic values for density, bending strength and mean modulus of elasticity parallel to the grain. The characteristic values are for use when designing in accordance with EN1995, the timber Eurocode, which is in limit state format. Until about 2009 EN1995 will run in parallel with the existing national codes such as BS5268-2.

This new publication is intended for engineers and designers who are sometimes confronted with a request to use a species for which little engineering data has been published. As Richard Harris of Buro Happold says in the foreword "For long span structures, particularly those in which slender elements are expressed in the architecture, if it is not possible to make full use of the strength of the material available, timber might not be considered appropriate as a structural material. Until this guide, the published standards gave information for only two temperate hardwoods (European oak and sweet chestnut); this guide provides information for a further four important temperate hardwood species." Richard Harris goes on to explain that the ability to extend the use of such species increases the architectural pallet and the opportunity to use such sustainably sourced timber. "There is no other construction material that comes anywhere near timber in its potential to produce environmental benefit" he says.

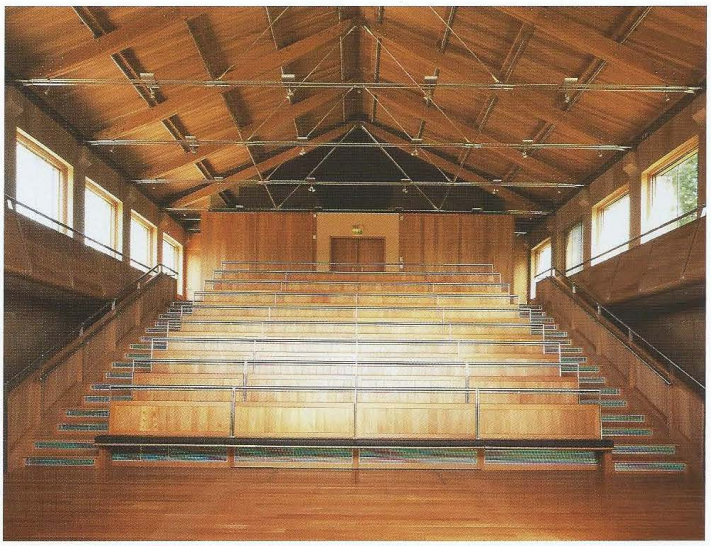
"Structural Design in American Hardwoods" makes reference to the National Hardwood Lumber Association (NHLA) rules for grading, gives guidance on commonly available specifications and details five durability classes under EN350-2 based on the Handbook of Hardwoods (BRE 1997).

Strength, stiffness and density properties are given for each species in both limit state and permissible stress formats. The use of both formats is illustrated in the worked examples in the following section. Three of the four species do not completely fit a single strength class profile, however, both Eurocode 5 and most National codes allow design to be carried out using properties which have been derived from testing, and this option will obviously optimise the potential of a particular species. As a basis for comparison, the strength class properties are put alongside the characteristic values.

A basic design example set out in the publication is for a mezzanine floor and staircase, detail glulam and joint design giving values in accordance with both Eurocode 5 and BS5268-2. A commentary on the central courtyard glazed roof of Portcullis House in London, designed by Hopkins with Arup acting as engineers, is also given as an example. A full list of standards and references for further reading is also included.

The test results on these species by BRE have uncovered some surprising data and established that all four have the potential to be more widely used structurally. AHEC now offer this information to architects and engineers all over Europe so they may have the confidence to use them in load-bearing applications.

AHEC produces a full range of technical publications which are available free of charge by visiting www.ahec-europe.org.



Queen's Building, Emmanuel College Cambridge. The roof trusses use American oak. By Hopkins Architects with engineers Buro Happold. Photo: AHEC

Terms and Tolerances, a case study

By Paul Sharphouse, Technical Consultant with TRADA Technology Ltd

As published in the Builders Merchants News, June 2005

While reviewing delivery notes for timber delivered to site, it became clear that there was a problem with size, or more precisely the building inspector's understanding of the sizes delivered.

The joists delivered to site were supplied against a delivery note stating the size as 'Regularised 47mm x 200mm'. However, when the inspector checked the width of the joists actually installed, they commonly measured around 194mm. Even allowing for some shrinkage, the question was asked: Are they undersized? And if yes, should they be replaced?' The answer lies in the terminology used on the delivery note.

Under Class 2 of BS EN 336: 2003 'Structural timber - Sizes, permitted deviations', a joist width (depth) of over 100mm is permitted to be within a tolerance of + or -1.5mm. However, this Standard uses the term 'Target size' which has not been widely adopted by timber suppliers. Conversely, the term 'Regularising' - which is widely used by importers and merchants - does not appear in the Standard. This can lead to confusion.

The Standard uses the term 'Target size' to indicate the particular size to which any tolerances should apply. If the timber is supplied as sawn, the 'Target size' would correspond to the sawn size; if supplied as regularised the 'Target size' would correspond to the regularised size (This may sometimes be referred to as the finished size).

If the joists were supplied against a 'Target size' of 200mm width, the Class 2 tolerances would allow individual pieces to be -1.5mm, ie 198.5mm although the average dimension should still hold up to the target size of 200mm. Even allowing for shrinkage, if the joists were stored under heated, dry conditions, a reduction to the 194mm measured in the case under review would not be permitted.

However, the dimensions of 47 x 200 correspond to stock sawn sizes for UK softwoods and it would therefore be reasonable to assume that 200mm is the size for the joist width before, not after, regularising. The process of regularising, to bring the tolerances from those of Class 1 appropriate to rough sawn timber, to the closer requirements of Class 2, involves some removal of timber. Under BS EN 336, up to 5mm may be removed from a joist width of 200mm without causing a significant change to the grade or structural performance of the joist.

The 200mm dimension then becomes the 'Ex' dimension from which the regularised timber has been produced, to give a finished or 'Target size' of 195mm. The Class 2 tolerances then apply to the 195mm regularised size. An individual joist could therefore measure 193.5mm (-1.5mm) although the average for all the joists should not be less than 195mm.

An allowance for shrinkage may also be included if the joists are measured at a moisture content below 20%. Expect a 1% reduction in dimension per 4% loss of moisture. On a joist of 195mm width, a drop in moisture content of just 2% from 20% would therefore produce shrinkage of around 1mm.

Sawn joists of 200mm width which had been regularised and then dried to just below 18% moisture content could be expected to have a measured width averaging 194mm, with some individual joists down to 192.5mm.

The dimensions on the delivery note in question (see paragraph 2 above) appear to be those of the sawn timber, which has then been regularised, not the dimensions to be expected after regularising.

Delivery notes for the same material may also appear as 'Regularised 47 x 195', in which case the 195mm corresponds to the size after regularising and in that case, a further reduction of 5mm is not permitted.

Timber merchants appear to use both forms of description and in most cases it can be assumed that the user will be sufficiently familiar with the standard sizes and reductions to identify whether it is the sawn or regularised size which is quoted.

In cases of doubt, reference should be made to the original joist size specified – a good argument for meticulous paperwork in the sales office and for sound product knowledge among sales and yard staff.

Softwood sizes-some further observations

TRADA Technology Ltd has revised Softwood sizes, the Wood Information Sheet dealing with customary sizes and tolerances of softwood traded in the UK. This is now available.

The UK has traditionally imported timber from a wide range of countries, as well as producing its own. Although timber structures and non-structural applications can be designed using many sizes, the sawmills producing softwood generally do not know the intended end use. They therefore produce a range of 'customary' sizes.

Specifying timber in these sizes is the most economic method, both in terms of material usage and cost. An extensive range of sizes is available throughout Europe, with individual countries having different traditional sizes in common use. European Standards therefore include the 'preferred' sizes, whilst those in common use in individual countries are included in National 'informative' annexes.

Photograph courtesy of TRADA

For confidential queries telephone the Technical Consultants' team on 01494 569600 or email rwhite@trada.co.uk. For information about timber visit www.trada.co.uk. Access is free of charge – simply register with your email address and a password.

TRADA members and Registered Users of the askTRADA website may view this Wood Information Sheet free of charge at www.trada.co.uk. To purchase a printed copy, please contact the Publications Department on 01494 569602 or email info@trada.co.uk. Cost is £5.75 (incl postage & packing).

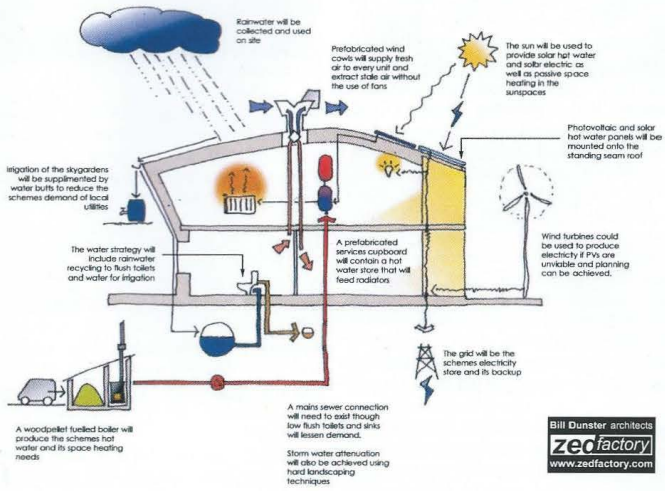
Framing a Zero Energy Development (ZED)

By Matthew Hoad AIWSc RIBA - ZED Factory Ltd

Peak oil and power down

In Britain most of us live our lives consuming energy as if it will never run out and the construction industry continues to construct buildings which are inefficient and will become expensive to run. We do however have a choice and this involves building to Zero Energy Development (fossil fuel) or ZED standards to reduce energy consumption to a third of current levels allowing clean renewable energy to be generated on site to power our homes. Consideration also needs to be given to the embodied energy of making and transporting materials, but this must be weighed up against the life cycle of the buildings in which they are being used. The manufacturing of concrete for example produces more CO_2 than timber but has a very high thermal capacity and is therefore ideal as thermal mass to minimise internal temperature fluctuations reducing the energy needed for heating and avoiding mechanical cooling. Timber on the other hand is a better insulator with a low thermal capacity for making efficient warm structures and is easy to engineer for fire protection using a charring rate. To combat climate change and ecological degradation caused in part by construction both directly by energy consumption in use and indirectly in the production of materials and components for the building fabric, a third green industrial revolution is evolving.

A prototype 3 bedroom, 130m² house designed by Bill Dunster Architects, ZEDfactory was built in December 2004 in Camborne, Cornwall, in 10 weeks as the centre piece for a sustainability exposition. The build was organised by the Cornwall Sustainable Building Trust and built by 3 carpenters and some eco-build students with huge support and sponsorship from local companies. The flat pack kit of parts has been designed to meet the highest environmental standards and can be adapted for housing, offices or schools and has the potential for small high-rise.



Renewable energy and water harvesting diagram for a ZED.

Modern Methods of Construction (MMC)

For thousands of years variations on post and beam construction have been developed for many uses and adapted easily over time. The principles of off-site prefabrication are not new to this method of building and have now been developed into MMC systems. An entire building can be made off site to include precast foundations, timber framing, concrete plank linings, studwork infill panels, service pods, windows and doors, preformed rubber waterproofing membranes, and virtually everything else down to the kitchen sink. It is rather like building flat packed furniture that you live in.

Assembled glulam frame.

The engineering is by Mark Lovell Design Engineers and the glulam timber is specified to BS 5268 as this grade has twice the shear capacity and far better stiffness than that of solid section timber. All the structural members including joists and rafters are CNC (Computer Numerical Control) cut and drilled. Solid timber sections are always an option but require larger wall and floor sections as well as more substantial joints. Off-the-shelf glulams can be specified in whitewood, *(Picea abies)* redwood *(Pinus sylvestris)* or Douglas fir *(Pseudotsuga menziesii)* with hardwoods like chestnut *(Castanea sativa)* and oak *(Quercus* spp.*)* for specialist applications or where additional strength is required.

External studwork modules and membrane installation.

The party walls use 160mm square posts at 2m centres with 200mm square posts running offset along the middle. Double 270x90mm beams are jointed into the posts and fixed with bolts. The bracing is between posts in party walls and adjacent to the stair core. A shear plane is formed on all floors and the roof with 18mm WBP plywood laid on C14 joists hung of the beams. The fair faced 45mm thick white concrete planks made with cement replacement and recycled aggregate are suspended from the beams using steel fixings. Timber cover plates along structural grid lines provide fire protection, to the fixings and the modular connection for internal studwork partitions.

For the prototype, reclaimed concrete railway sleepers were used for foundations and were connected to the ground floor beams using adjustable steel shoes. Commercially precast concrete foundations will be used with steel stub columns lifting the superstructure clear of the ground.

Making the building water tight is a priority on site and the roof membrane is completely preformed to fit like a glove over the roof with the water tight breather membrane and standard window sizes installed to form the walls to complete the envelope. Factory painted CNC cut laminated redwood was used by Clearwood Joinery for the double glazed windows for good durability and a robust finish.

with solar thermal water heating for summer the wood fuelled pellet stove provides both space heating and hot water during winter and is also the focal point of the house.

Building an air tight envelope brings issues of air quality and moisture caused by cooking and bathrooms. A rotating cowl provides wind and passive stack ventilation without the need for any

UK grown western red cedar rainscreen boarding.

very fragrant but paler in colour than the Canadian wood. Samples are currently being tested in laboratories with early indications showing that the timber is very durable indeed.

Planning permission was granted this summer for two semi-detached RuralZEDs in Cornwall.

Eco-functional possibilities

As World demand for energy outstrips supply, fuel poverty will become an increasing problem putting local material supply and long-term thinking back on the economic agenda. Building sustainably in the 21st century is something that the construction industry cannot ignore and the seeds of an eco-functional architecture need to be given room to grow to re-address the balance with nature so important for our survival.

All photographs by courtesy of Zedfactory unless shown otherwise

Natural building physics

The thermal performance of timber is excellent and allows the posts and beams to be integrated into the 300mm thick insulation zone of the walls, roof and the floor giving a U Value of 0.1 W/m2K. The walls are breathable but also airtight using a membrane manufactured by Klober which is wrapped around the outside of the external studwork to minimise any penetrations through it which have to be fully sealed. The double glazed sunspace provides a buffer zone in peak summer and winter and is a source of low-grade space heating in mid-season. Coupled mechanical equipment. Ducted air is supplied through a heat exchanger unit providing 100% fresh air 100% of the time. Keeping timber components dry and well ventilated is vital for their long term service and this is why robust detailing and ventilated voids behind rain screens are so important. The suitability of western red cedar *(Thuja plicata)* for cladding is well known and the RuralZED rainscreen uses FSC UK grown wrc supplied by Tino Rawnsley Woodland Products cut from the Duchy woodlands and dried in a solar kiln. The timber is from 50 year old plantations and typically has 8 growth rings per inch, is

The lounge and dinning area of the prototype show house at the exposition. Photo: Mike McLaren

ZED homes are affordable and can range from single rural developments to multi-storey town houses.

Company Profile - Premier Forest Products Ltd

Independent Timber Importers with a Refreshing Outlook

Premier Forest Products Limited was established in 1993, when founding directors Dilwyn Howells, Nigel Williams and Terry Edgell BSc AIWSc, predicted there was a need for an independent importer of timber and timber-based products located in Wales.

Their gamble has paid off, as Premier has enjoyed phenomenal growth since its inception and is now one of the UK's leading independent importers and distributors of timber and sheet materials. The company currently employs 33 people and has a turnover of £30 million.

So what is Premier doing that other timber companies can learn from or emulate?

Innovation and Expansion

Terry Edgell, Purchasing Director at Premier Forest Products, explains;

"Premier Forest Products differs from other timber distributors in its holistic approach to client needs. We strive to be the best solutions provider in the timber industry, and achieve this by matching client requirements with supplier solutions, or tailoring solutions to specifically meet client's needs. When necessary, we endeavour to find new timber solutions if existing suppliers do not fulfil the brief."

The company prides itself on its expansive range of products and its ability to supply a wide range of timber and timber-based products to all types of businesses – from shop fitters, furniture and caravan manufacturers, to timber merchants, the leisure industry and the construction industry. Thanks to the firm's network of facilities in Newport, Birmingham and Andover, Premier can efficiently deliver large or small orders to clients right across the UK. And alongside Plywood, Premier stocks Laminboard, OSB, Chipboard, Medium Density Fibreboard, Veneered Panels, Particle Board, plus Softwoods and Hardwoods from around the globe. Premier prides itself on the quality of its stock, and holds chain of custody certification for FSC and PEFC certified products.

"Our clients tell us that they want quality timber that can be delivered quickly and efficiently to them, wherever they are in the UK, which is why we are committed to expanding our network of offices and the quantity of timber and timber-based products that we stock. As we expand our client base, and our network of offices, it is this quality of stock and pan-UK service delivery that will allow us to achieve a target turnover of £80 million within the next five years."

The Birmingham office opening represents a £2 million freehold investment for Premier at the prestigious Nexus Point development in Holford. The company has created an entire trading team headed by a new addition to the main board, Chris Wild, to man and spearhead Northern expansion. The new board appointment brings with him 30 years of industry experience at the highest levels within the timber industry. The three founding directors regard this appointment as a significant commercial coup. As well as the recent opening of the Birmingham office, Premier also plans to open another regional office by the end of this financial year.

The founding directors, Dilwyn Howells, Nigel Williams and Terry Edgell

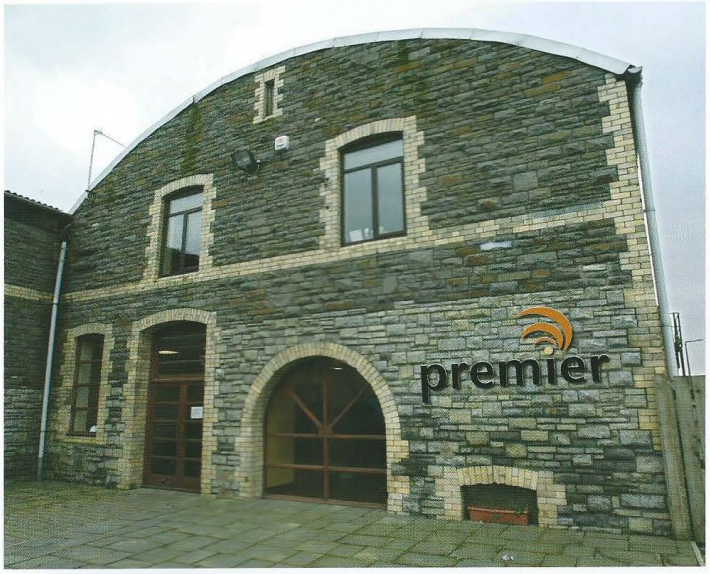
Investing in Staff

In order to be viewed as the best solutions provider in the industry, Premier's Directors realise that the company must be staffed by solutions-driven timber experts from the top down. Hand in hand with Premier's facility expansion then, is its dedication to employing high calibre personnel to grow with the company.

Premier is keen to recruit sales and customer liaison staff that have worked within the timber industry before joining the company, and their expertise and knowledge of the industry has been vital to premier's rapid growth. However, Premier realises the importance of bringing in new talent to industry, too, which is why it launched an employee training scheme for junior staff members earlier this year.

In a bid to try and redress the timber industry skills shortage and develop staff to their true potential, Premier is sponsoring three members of staff, supporting them while they combine work with study for the Institute's Foundation Course Certificate. While the employees are studying, Premier will benefit from their improved skills, and the course will set the staff up for further vocational training and the next steps on the career ladder. Participation on the course will benefit the employee, Premier Forest products and the timber industry as a whole.

"It is a win-win-win situation", suggests Terry Edgell, "and one which we would encourage other timber traders to follow – an investment in staff training is an investment in the prosperity of your business today, and the timber industry for the future."



The Head Office in Newport

Marketing Matters

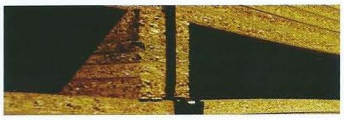
Acknowledging the need to strengthen Premier Forest Products' brand identity as the company grows, Premier has also re-launched its corporate website. The site is now more interactive and inclusive than before, thanks to its staff page, product information links and an up-to-the-minute news page. Potential clients can now find out quickly and efficiently all they need to know about Premier via the web, and the dedicated 'contact us' e-mail address also allows ad hoc queries to be answered swiftly. In the first three months of the new-look website, web traffic to the site increased considerably, and Premier has achieved numerous sales and purchasing leads brought about through new web visitors to the site, from within the UK and Internationally.

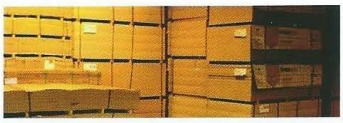
The new Birmingham Premises

Premier has also up-weighted its 'off-line' activity, and has employed the skills of a PR agency to give the company a stronger presence in the news, business and trade media. As well as making announcements on Premier's achievements, acquisitions and accolades, PR support will help develop a greater brand awareness and identity for the company as it rapidly grows and expands into new regions and markets.

An Award Winning Formula

In its first twelve years, Premier has won several industry awards and commendations, including Panel Trader of the Year (TTJ Awards, 2003 and 1998). Premier has featured in The Western Mail Annual Fast Track 50 for most years since the listings have been compiled, and was included in the 2004 Western Mail Top 300 Business listing. In June, Premier won a prestigious Ernst and Young Entrepreneur of the Year Award in the Business Products and Services category.





Future Plans

For the future, Premier intends to build on its solid base and branch out into underdeveloped markets. The company also aims to keep up its aggressive growth record by developing existing client relationships further. By developing and growing sales through its regional offices, Premier intends to increase its turnover to £80 million by 2010. By continuing to recruit the best staff, and train the best graduates, Premier will also ensure that its clients will continue to receive the best advice from some of the best timber experts in the industry.

Email: sales@premierforest.co.uk
Website: www.premierforest.co.uk

Making the Grade
-a guide to appearance grading UK grown hardwood timber

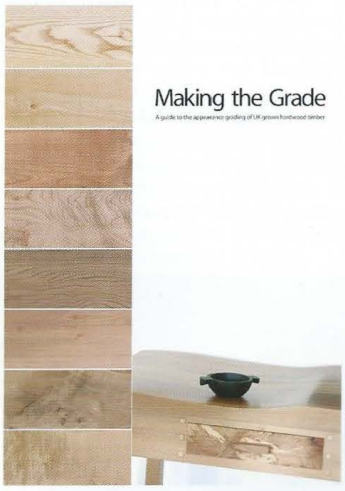
Peter Wilson, Director of Business Development at the Centre for Timber Engineering at Napier University, summarises this important new publication.

To the uninitiated, the visual grading and appearance grading of hardwood timber might easily be regarded as one and the same thing, but this would be to confuse two quite separate assessment methods that have entirely different purposes. Essentially, the grades for timber are divided into two categories - structural and non-structural, and visual grading is one of the methods used to assess the load-bearing characteristics of a piece of timber. Appearance grading, on the other hand, is a means of assessing timbers for non-structural purposes, but the difficulty until relatively recently with UK grown hardwood timbers was the lack of a reliable common standard that could be used by everyone from sawmillers to specifiers.

This might seem a small issue, since many UK sawmills and timber merchants already use an appearance grading system of some kind, but for architects, designers, furniture makers and other end users the very existence of different approaches has meant doubts that material being supplied would actually match the characteristics specified. The first serious move away from this uncertainty began in 1996 when European Standard EN975-1 introduced appearance grades for oak and beech. As with all European standards, this has the status of a national standard in the UK and, although not mandatory, it is recommended as trade practice. To date, however the uptake amongst suppliers of UK grown hardwoods has been limited and neither has it been widely understood by specifiers and end users. Whilst this may be due to the presentation of the standard and a widespread perception that it is unnecessarily complex, arguments have also been made that the grades proposed do not fully suit the characteristics of UK timber and that other commercially important species such as ash and sycamore are not dealt with

In response to these issues, 'Making the Grade - a guide to appearance grading UK grown hardwood timber' was recently published to provide a national commentary on EN975-1 and to extend coverage to the eight hardwoods most commonly available in the UK. Getting to this point has been something of an achievement since not only did the development work cover desk research, testing in sawmills, and consultation with everyone from timber trade representatives, specifiers, timber users and research and governmental organisations in the UK, but it also involved authors Ivor Davies and Guy Watt and their many contacts throughout the UK in an extensive and time-consuming search for suitable examples of the grades proposed for each timber species.

As far as possible, the new document follows the European Standard's grading criteria, and indeed in most respects the grades it gives are interchangeable with those in EN975-1, and even though it has been necessary to make some changes to accommodate the timber availability, species, characteristics and resultant production methods found in the UK, the appearance grading system provided in the guide has been made as simple and logical as possible. The grades cover all hardwood species commercially grown in the UK - Ash, Beech, Oak, Sycamore, Sweet Chestnut, Cherry, Lime and Elm - and apply to both square- and waney-edged timber. The grades are primarily determined by the presence, size or frequency of knots and splits on the best face of the plank or board.



The characteristics of the worst face are only considered if they are likely to affect the performance of the timber in its intended use and in each instance three grades are given. Equivalent to what is often called 'clear' or 'prime', Grade 1 describes planks and boards that have a uniform appearance with few, if any, knots splits or other features that would limit their use in applications where little variation in appearance is permitted. Grade 2 has some knots splits or other features that limit use where uniformity of appearance is important but where the piece will yield areas clear of unacceptable features along with timber suitable for applications where some variation is acceptable. Grade 3 timber includes all manner of knots, splits, colour variation and other features.

In most cases, simple assessment of the knots and splits is likely to be sufficient to determine the grade, but occasionally other timber characteristics may require the piece to be downgraded even though the knot and split characteristics are acceptable - discolouration, for example, may be an important limitation in light coloured species. For this reason, some mills choose to make fine distinctions within a grade, splitting each into optional sub-grades. This mainly applies to oak, but these subdivisions can also be useful in other species such as ash and sycamore.

All of this may sound complicated, but the appearance grading system and detailed grading criteria contained in the guide are set out in easily referenced tables with extensive notes and a full glossary of terms used. The eight timber species themselves are shown in considerable detail and great care has been taken in the document's design and production to make accurate colour assessments and scale comparisons possible. In addition, a series of clearly laid out appendices cover everything from the measurement of sawn hardwood timber and the properties and uses of UK hardwoods to criteria for specification, sourcing and certification and a comparison between the system used in the guide and the European and British standards. For those intending to delve even deeper into the subject, the guide is fully referenced and has an extensive bibliography not only of current European and British standards, but also those in preparation and those that have now been withdrawn.

To complement the publication, a cd-rom is also available. This contains all of the same material and has been designed for use on any computer that has Adobe Acrobat on it. The cd-rom's simplified p.d.f. structure allows the information to be accessed by even the least computer literate person and is a joy to use, making possible almost instantaneous comparisons between timbers. Available free, both the cd-rom and the high quality publication cannot help but succeed in the stated aim of encouraging greater use of UK grown hardwoods.

'Making the Grade - a guide to appearance grading UK grown hardwood timber' by Ivor Davies and Guy Watt, is available free in publication form and as a cd-rom from:

Forestry Commission Publications
PO Box 25
Wetherby,
West Yorkshire
LS23 7EW
Tel: 0870 121 4180
Fax: 0870 121 4181
Email: forestry@twoten.press.net.

Correspondence and IWSc Courses

Solving Problems, article by Tom Shaw (Issue 12 Spring 2005)

I am writing to comment on Tom Shaw's article about the broken ladder with the missing section. As an Expert Witness of over 25 years' experience, I was a little surprised to see the author advocating a solution which essentially amounted to making up the evidence and suggesting that as a way out of the problem!

In the first place, the fact that the crucial section was missing should have led to every effort being made to trace it via the carrier. Secondly, should that have proved fruitless, the 'Legal Boys' should have considered suing the carriers for the full cost of the claim, since their carelessness had resulted in the potential collapse of the client's defence. Thirdly, I cannot imagine a Court ever accepting a report from an expert who had endeavoured to assume a solution, even if the assumption was made from a reasoned hypothesis, as part of the evidence and without having considering all of the possible ways in which the break might have occurred.

Slope of grain is certainly one possibility, but what about the 'large nearby branch' that has been suggested? Equally, what about pre-existing damage or the overloading of the ladder during its use? Other strength reducing defects to consider could have been rot or compression wood.

The solution offered contains too many imponderables to be of real value in a Court. I should however mention that the disappearance of essential evidence is certainly not unknown and I was once asked to write a report on the need to replace a floor, but only after it had been replaced by a new one!

Jim Coulson FIWSc
Technology for Timber
Ripon

Peter B. R. Johnson FIWSc writes and welcomed Tom Shaw's interesting article on the ladder failure that appeared in the Spring 2005 issue:-

Do not BS 4978 and BS 1129 mention reaction wood? I remember being told by Dr John Dinwoodie at FPRL in the 1960s that compression wood in softwoods was often a cause of ladder failure. I note that Tom Shaw suggests that the problem could have been influenced by the grain distortion caused by a nearby branch and agree.

When inspecting timber suppliers' stocks for suitable material for trussed rafter manufacture between 1965 and 1985 I frequently recall seeing the darker crescent-shaped zones following the growth rings, indicating compression wood, and with it the liability of failure, excessive longitudinal shrinkage and distortion. Even today I notice compression wood in the DIY shops and when passing a building site!

It seems a remark I made in the CP112 Committee that 'the abnormal defect of reaction wood frequently occurs' may still apply. Members might like to search FPRL leaflet No. 51, 1956-66, Reaction Wood. S.O. Code No. 214-51-63.

Reminiscing further, I recall what a rarity a moisture meter was back in the 1960s, even amongst the fabricators of trussed rafters and timber frame houses. Moreover, I recall one particular occasion when I requested a sample trussed rafter punched metal connector plate from Rainham Timber Engineering (part of the Phoenix Timber Organisation at Frog Island Rainham, Essex) and said plate was duly delivered by the chauffeur driven Rolls Royce of Mr Gourovitch (Chairman of Phoenix and no doubt remembered by many older members of our timber trade). You can imagine the raised eyebrows at the Wimpey Head Office as the immaculate car drew up with its important sample!

In conclusion, how vital indeed are your courses and qualifications to the trade - much cheaper than a legal case arising out of a ladder fracture or an adhesive failure!

Peter Johnson FIWSc

Surbiton June 2005

Editorial note: BS 4978 includes compression wood in the section that covers abnormal wood and provides the criteria for its assessment.

Foundation Course on Timber

The Foundation Course is for new entrants into the timber industry as well as for those who already have work experience and wish to improve their product knowledge.

Module 1. The Material: Timber and Panel Products
Module 2. Timber Use: Carcassing and Joinery

The Course is designed for distance learning and on successful completion of the modules and test candidates will receive the IWSc **Timber Studies Award.**

Certificate Course

A modular distance learning course in Timber Technology leading to a professional qualification and designed to meet current training needs in the timber and allied industries.

Core Module. Timber Technology, Wood Structure and Properties.

Technology Modules.
Moisture in Wood and Timber Drying
Timber Processing
Timber Protection

Resource Modules.
Softwoods
Hardwoods
Panel Products

Use Modules.
Carcassing and Strength Grading
Joinery and Appearance Grading

Commercial Modules.
Timber Trade Practice
Yard and Warehouse Operations

The Course is studied under the guidance of an IWSc approved tutor. For the **IWSc Certificate Award (CMIWSc)** the Core Module represents the compulsory element and the remainder are Optional Modules of which five must be completed. The candidate's performance is assessed by examination on the Core Module and by continuous assessment and projects for the remainder.

Successful completion can open the way for the student to study the Associate Level Course leading to **Associate Membership (AIWSc).**

For further details on all these courses apply the the Institute's Head Office, see page 16 for details.

Producing Barrel Staves

By John Wilson of the Woodcut trust

First printed in the Journal of the Institute of Machine Woodworking Technology March 2005 and reproduced by courtesy of the IMWT.

The concave circular saw

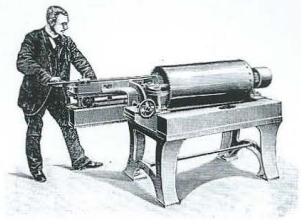
At one period all goods that were transported internally or shipped abroad were packed into wooden barrels. Dry goods such as flour and sugar, and wet goods such as beer were obvious uses for barrels. But most other goods were also handled this way. Spear & Jackson has early records of barrels of circular saws being shipped out to 'our American colonies'. Apparently circular saws were actually sold by the barrelful rather than as individual saws.

The reason for barrels being so popular was their ease of manhandling in an era prior to the wider use of mechanical handling aids such as we now have. Barrels could be very easy rolled along a level quay and up a slight incline to load a ship, then turned on their ends to become quite stable for storage.

This gave rise to a huge industry of cooperage for producing barrels of all sizes, and mechanization gradually took over many of the manual tasks. Barrels are made from individual staves which are sometimes tongued and grooved together, and which taper towards their ends. When banded together with metal strips they take on the traditional barrel shape, during which time the bottom end is fixed. (Incidentally, these metal strips were used to make the first bandsaws.)

The problem was in sizing the barrel tops and bottoms, also made from strips sometimes tongued and grooved. Turning was often used, but this was slow, so Huther Bros, of Rochester, New York began making concave saws to trim around barrel staves, tops and bottoms - making a single cut to both size and edge-finish them. Concave cutters were also made to fit inside the saws to form a rebate.

The saws resembled a deep metal saucer with teeth on their edge. Why did they need to be concave? Regular circular saws could not follow a curved path, but the concave saws could because their body was always clear of the timber and they were both fast and accurate. No guide was given as to the machine these were used on, but one would assume they entered the cut on an arc, and then the barrel was rotated, generally as shown in the illustration.

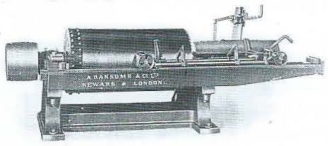


Operating an Anthon Drum Saw for cutting Staves (1897)

Our German friends, as we well know, are very fond of their beer and so they became experts at making barrels to hold beer - and most other wet or dry goods - also the machinery to make the components.

Sawing the staves concave on the inside and convex on the outside sounds improbable - but the drum saws shown could pro-duce up to 10,000 staves a day -according to the rather optimistic promises of the makers.

Each consisted of a long driven cylinder with saw teeth at one end, and with a diameter of between 300 and 750mm. - according to the required barrel size.



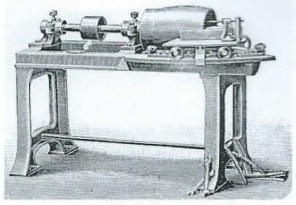
25 years later Ransome produced this more robust version of the barrel saw.

The wooden bolt or block, previously sawn to length and width is clamped in position on a roll-ing carriage and pushed forward manually - to first saw either the inside or the outside of the stave. Different machines were made for inside or outside sawing, although some appeared to be capable of both at following passes. Machines were also made for planing the inside and outside surfaces of the staves when a smooth finish was needed.

Health and Safety Inspectors were in little evidence in those days - note the lack of chip-limiter teeth, guarding, extraction, suitable clothes for the operator and anti-slip mats. Those were the days - when men were men!

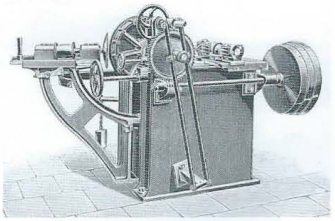
After sawing, the staves were machined on their edges to form the barrel centre bulge when assembled - on yet another machine - and then steam-bent to correspond with the barrel profile. To produce staves for short, well-bulged barrels a variation of this type of machine actually fed the block in a curved path corresponding to the top to bottom curve of the barrel. To allow for this the barrel saw was also bulged like the barrel they were intended for.

Sawing staves that contained the top to bottom barrel shape meant that they did not need steam bending after sawing. In fact, steam bending such short, hardwood staves as used for this type of barrel would probably have been impractical in any event.



The Anthon barrel saw produced staves in a curve that followed the profile of the barrel.

The final illustration shows the concave saw mentioned in the Woodmex combined journal - this time on the actual machine it was used with to trim barrel tops to size and at an angle. The saw blade swings into the cut on an arm in a radius that corresponds to the concavity of the saw blade, and is then held there whilst the barrel top is revolved.



This Anthon machine is for "Cutting and Hollowing the edge of Headings". It is for sawing around barrel tops and bottoms (headings) using a concave saw. These can then be rebated using the auxiliary tools on slides. It probably could also saw and machine the tops and bottoms of the barrels themselves, but in fact separate machines were made for this.

Many very highly specialized machines were made for barrel-making - each one replacing a single operation of the coopers hand skills. Barrels were made for transporting virtually all goods, and the production of barrels was huge. And yet there is virtually nothing left of this highly specialized craft.

Fire Doors

This article is based on a section of the Joinery and Appearance Grading module that forms part of the new IWSc Certificate Course.

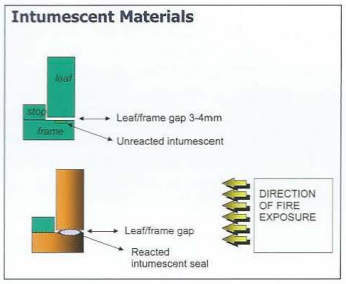
The purpose of a fire door is to resist the passage of fire for a guaranteed length of time hence the terms:

FD20 (twenty minutes)
FD30 (thirty minutes)
FD60 (sixty minutes)
FD90 (ninety Minutes)
FD120 (one hundred and twenty minutes)

Fire door assembly with heat resistant glass panel at the Open University Library. Photo D E Woodbridge.

Insulation against the spread of fire is also important and for this the capacity to resist the heat rising on the side of the door away from the fire to a level that could ignite flammable materials is also measured. This rise in heat can either be through the fabric of the door or, more likely, as a result of hot smoke and gases escaping through the gap between the door and its frame. Such doors have the prefix S standing for smoke. For example FD30S.

The construction of a fire door that claims to have a fire performance of 30 minutes or more will incorporate into its structure an intumescent strip.



Top view of a fire door stile showing location of the Intumescent strip. Courtesy of BM TRADA

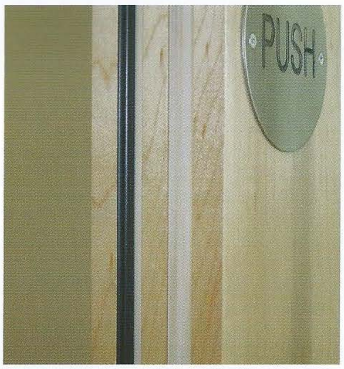
The intumescent seal is heat sensitive and when the temperature rises due to the spread of a fire the strip will expand and seal the gap between the door and its frame. This helps to hold the door leaf in place and so contains the fire and to restrict the passage of hot gasses and flame. Intumescent fire seals are, however, not designed to control the flow of cold smoke. This requires a separate smoke seal (or combined fire and smoke seal), which will control the leakage of air and smoke through vulnerable parts of the door, for example the gap between the door leaf and its frame or cut apertures to house a letter box, and which could cause a threat to occupants in parts of a building that was not directly affected by the fire. This would include fire escapes, stairways and passages.

A BWF certifire label

Fire doors are colour coded with an inserted plug or a coded label. This will give information of the fire resistance of the door.

Because of the performance required, fire doors are going to be heavier, more substantial, have a solid core and be not less than 44mm thick. They can however have glass openings provided that the glass is special heat resistant or Georgian wire glass.

The BM TRADA coding chart for fire doors with inserted plugs



Door edge showing both the intumescent strip (in white) and the smoke seal (in black). Photo D E Woodbridge.

Fire doors, their frames and the ironmongery (hinges, locks etc), are all part of the design upon which the fire test would have been carried out. When a door passes the fire test, at whatever rating is applicable, all the hardware and components in the assembly have also simultaneously passed. For this reason it is not possible to modify a fire door in any way and to still claim its fire resistance rating.

The technology of fire doors is complex and if there should be any confusion as to the rating or installation of a fire door or door set it is recommended that you seek advice from one of the Third Party Accreditation bodies. For this purpose the contact details for BM TRADA and the BWF are shown below

BM TRADA, Stocking Lane, Hughenden Valley, High Wycombe Bucks HP14 4ND
BWF 55 Tufton Street, London SW1P 3QL

Reflecting on her career with the Howarth Timber Group over the last eight years Emma Brooks writes:

I joined Howarth (Timber Importers) Limited in August 1997 as a 'commercial trainee' after a successful 'A' level education at John Leggott 6th Form College. Following my initial induction period, during which I completed the company's 'in-house' product training manual, I commenced the IWSc Certificate Course, which I successfully completed in March 1999. This gave me increased levels of confidence regarding our products and timber as a material and I gained a greater understanding and ability to identify problems or faults when dealing with customer complaints through my increased technical knowledge of timber. I gained additional confidence when dealing with trade customers, end users and merchant businesses, due to a wider understanding of the timber trade as a whole, transport issues and legal caveats.

A section of the course which I found particularly valuable was the module on Sawmilling and Machining. I have found that during trips to our suppliers' sawmills in Finland and Sweden I have been able to draw upon my knowledge to understand how they work when processing of the raw materials.

Over the last seven years I have gained experience working on the Southern sales desk, managing a number of our key accounts with a combined budget of £7.5 million annually. In October 2004 I moved onto the Northern sales desk to manage my own area and accounts. I have undertaken regular site and sales visits to my account customers in order to foster and enhance our working relationship and develop increased market opportunities.

Completing the IWSc Certificate course has helped me to achieve my career goals. My increased technical knowledge of timber has allowed me to develop a more relaxed, confident and professional approach when dealing with customers and specifiers. This in turn has allowed me to establish customer's requirements accurately and advise them about the properties and characteristics required for their intended end use.

The Howarth Group's own 'in-house' training has included sales training, field trips and visits to sawmills in Scandinavia and on-going product development training. In one particular 'in-house' course covering commercial/appearance grading we were required to grade twenty pieces of timber, and I am pleased to say I achieved the highest score in the exercises and won! I can say that, even with the years that have passed since taking the IWSc course and exam, the solid core of knowledge gained still helps and was no doubt partly responsible for my success in the grading test.

My earlier training together with my professional and trading experience has now opened up a new area of career development. In addition to being appointed as a 'mentor' for a new trainee I, along with the Purchasing Director, have been involved in the recruitment and selection process for this year's intake of 'commercial trainees'. During the interviews I was able to explain to each the importance of the IWSc Certificate course and how it would be essential to their professional development within the timber industry.

Emma Brooks August 2005

James White of Lathams, who became by examination an Associate Member of the Institute earlier this year writes:

I am currently working as a sales executive at James Latham Plc Purfleet

On the successful completion of the Certificate Course, with a Distinction in the Examination, I proceeded to study for the Associateship. This I finally achieved early in 2005 having had my project on a study of timber in different exposure conditions and how they related to moisture content increase accepted.

At both Certificate and Associate level the key points of the course for me were timber technology, processing and machining, especially as related to the products I sell. Also very interesting was the research required for the hardwood project and the closer examination of the structure of wood.

I can say with confidence that the knowledge gained has certainly helped me in my day to day work. Perhaps, more importantly, my confidence has risen. I have become more assured with the products I sell and this has helped increase sales.

I like to think that my customers are impressed with the broad range of my product knowledge and this has in fact been confirmed as many are eager to ask for my opinion and advice. That in itself is most rewarding and is probably the best proof that taking the two courses has indeed enhanced my career.

Thinking back it would be remiss of me not to mention how supportive and encouraging Lathams have been with regard to my study.

Having now achieved AIWSc Membership of the Institute and although it, at times, seemed a long slog to get there, I can confidently say that the value of the IWSc courses are huge. I would recommend any new recruit into the timber industry to do at least the Certificate Course if they are serious about a future in the industry.

A Certificate Course tutorial

Selecting and preparing samples for project work is one of the varied tasks undertaken by those studying the IWSc Core Module Wood Structure and Timber Properties.

In this picture, taken at James Latham's Wigston depot, Gareth Wilson (holding the oak sample) and Mark Palij are with their mentor, Ian Milne (extreme left) and tutor, David Woodbridge (holding the measuring tape). Gareth and Mark along with two other Latham students from Ossett, also being tutored by David, are expecting to take the examination in November. Once this stage has been successfully accomplished they will proceed onto their individual selection of optional modules.

New BSW Training Course Backed by the IWSc

In April 2005, Technology For Timber Limited was approached by BSW Timber plc, regarding the possibility of creating a tailored one-day training course for them to "roll out" to their customers. It was to be loosely based on the IWSc's own Foundation Course (which had been used for the highly successful courses sponsored by SCA and tutored by TFT from summer 2000 to spring 2005), but it would concentrate specifically on softwoods – including the issue of Forest Certification.

A key desire on the part of BSW Timber was to achieve Accreditation for their course from the Institute of Wood Science - both to give credibility in the eyes of its customers and within the industry itself, and to demonstrate an element of "independence" in the course's presentation and content, so as to make it more valuable and acceptable to the participants.

The so-called "Constructive Timber Course" was then developed in a series of intensive discussions between Jim Coulson of TFT and Bryan Crennell of BSW Timber over the next few months, with the aim of launching it in the autumn of 2005.

Agreement on IWSc Accreditation was achieved in July this year, following 3-way discussions between TFT, BSW and the IWSc, in the person of its Director, Jim Lumsden. A key element of this agreement was that there will be a test of delegates' knowledge at the end of the training day, with a Certificate given to successful delegates, to be issued jointly between BSW and the IWSc. It will show the IWSc's logo on the Certificate, in order to highlight the IWSc's role in promoting training at all levels within the timber industry.

Furthermore, BSW has undertaken to encourage all participants in the Constructive Timber Course to take up one or more of the Institute's courses in future.

As we go to press, the first of the training days – tutored by TFT –took place at the Newbridge Sawmill in mid September and included an intensive training day and tour of the sawmill. At the end of the day, the delegates took the accredited IWSc test with following results: 10 passes with 8 gaining a Credit. There was 1 fail and 2 had, unfortunately, to go early missing the test.

The expectation is to have further training and examination sessions each month, to be held in different locations in the UK, throughout the next year.

Certificate Course Awards

Mar-05

Pass	*Michael Davis* *Stephen Hills* *Martyn Gilmore* *Daniel T Mahoney* *Daniel J May* *Neil Gurman*
Pass with Credit	*Andrew Simpson*

Foundation Course Examination results

Jan-05

Pass with Distinction	Andrew Seaborne

Feb-05

Pass	Andrew Corkett Alan Walker Tim Atkins Malcolm Smith
Pass with Credit	Nicholas M Voyce Peter Williams Christopher Gadd Ian Ellis Antonio Rossini Julia M Weaver Ceri Boden Peter Stuart Wilson
Pass with Distinction	Darryl Richards Siobhan Guest

Mar-05

Pass	Robert O'Neill Brian Palmer
Pass with Credit	Alfred J Ardley Keith Slaney James P Sharkey Andrew McDermott
Pass with Distinction	Richard T Beever

Apr-05

Pass	Peter Clayton Paul Hazzey Mark J Fry Rachael M Slade Ruth Dale
Pass with Credit	Johanna Sallstrom Selina Y C Thompson

May-05

Pass	Mark Ellwood Tom Mitchell Alan Gardiner Peter Ritchie Paul Whiteside Stephen White Michael Boyd Andrew Nelson Philip M Deacon Jane Bissenden Stuart Fletcher Paul Sellers Tim Fourie Andrew McGregor
Pass with Credit	Dane Mostyn Sean Piela Helen Warmington Barry Sowersby Neil Faulkner

Jun-05

Pass	Julie Clarkson Lee Jarvisq James Hathaway David Lane Matt Freer James Buckle Carwyn Harries
Pass with Credit	Andrew Clegg Colin Bassom Owain L Morris Andrew Macnabney Richard Moore

Jul-05

Pass	Paul Robinson Andrew Morgan William Murphy Alan Byrne John Farrell Sean Millea Ben Paisley Donal Rigney Michael Headley Neale Buick Dermot McDaid Paul Borne Philip Brown Eddie Simpson Shane Kehoe Michael Nash Ian Kirk Jack White Senan Raggett Michael D Lynch John Mason Michael Gleeson Nicholas Carden Scott Brown David Harcourt
Pass with Credit	John Leach William Irving Anthony Burchill Mark Browne Mark McKenna Peter Morgan Gordon J Rennie Julie Nugent Mark Graham Liamj Byrne Mark Heaney Peter M Coughlan Shane Jennings Peter A Diamond
Pass with Distinction	Geoff Brooks Jim Carroll Matthew Keating

Aug-05

Pass	Billie-Ann Juliff David White

REGIONAL CONTACTS

For information on branch and/or regional and overseas activities, the contacts are:

Chilterns and Thames Valley - Dr. Vic Kearley AIWSc (01494 563091)

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For details of individual and corporate membership, contact the Institute direct.

Jim Lumsden, Director, reports.

The Institute recently accredited two company training courses designed for trade customers to improve timber knowledge and sales confidence.

Finnforest were the first to receive recognition for their 'Introduction to Timber' course, already certified by the Open College Network and run at the company's state of the art Training Academy in Boston, Lincs.

Human Resource Director, Fred Warner commented: "It takes a full team effort to consistently deliver a high quality programme of this nature, so we are delighted that the Institute has recognised the status and merit of our Academy courses" The accreditation follows significant investment earlier in the year to completely refresh and redesign the course material provided to the students.

BSW Timber, the UK's largest sawmilling business, are the second organisation to receive recognition, in this case for their 'Constructive Timber Course'. This provides customers with the opportunity to improve their knowledge of timber whilst gaining a qualification approved by the Institute. A report of the first of these courses is presented on page 15.

The Institute is very pleased to be able to announce two new **Corporate Members.**

Build Center, who operate throughout the UK and **Timbersource Ltd** situated near Frome.

Examination Dates in 2006

The new Certificate Course structure requires students to take an examination on completion of the Core Module.

To provide maximum flexibility for when students start the programme, there will be four exam sittings per year.

For 2006, the exam dates will be on the third Friday in February, May, August, and November.

Canadian Branch

Seminar Series

Forests, Dollars and R and D – Some Australian Perspectives
by Dr. Glen Kile

Presented at the Centre for Advanced Wood Processing on Thursday June 9th 2005 this seminar provided an introduction to the Australian forest industries, examined some of the policies influencing forest industries R and D and explained the structure of the Forest and Wood Products R & D Corporation and how it is endeavouring to build and fund a research portfolio that meets the needs of Australia's diverse forestry and forest products industries. Examples of successful research projects taken from across the spectrum of the Corporation's activities (Market Knowledge and Development; Manufacturing and Products; Resource Characterisation and Improvement; Sustainable Forest Management; Services and Capabilities) were given during the seminar.

Dr. Glen Kile is Executive Director of the Forest and Wood Products R & D Corporation (FWPRDC) that provides a national, integrated research and development focus for the Australian forest and wood products industry. Prior to his appointment to FWPRDC in 2002 Glen was Chief, CSIRO Forestry and Forest Products.

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