



WOOD SCIENCE NEWSLETTER

Institute of Wood Science

March 1993

FROM THE PRESIDENT

Whilst it seems only a matter of days since taking up the presidency, by the time you are reading this Newsletter a quarter of the term of office will have been completed. How time flies when you are enjoying yourself, which is precisely what I am doing at present, albeit it is leading to some very late long-distance driving getting around the membership.

I trust by now you will have some understanding of my background within our Institute resulting in my firm enthusiasm and encouragement for all our Branches. This has led me to my commitment during the term of office to visit all Branches at least once, and hopefully being invited to return again before being put out to grass in eighteen months. Getting around the membership is a fascination and a priority to me.

So far, visits have been made to see our colleagues at the Leeds and Sheffield, High Wycombe and, as Vice-President, the Scottish and Western Counties Branches. My regular attendance at Liverpool meetings over the years has become a way of life, and it will be with much delight and pride that I attend the Thirty-Fifth Liverpool Branch Annual Dinner, on this occasion as President.

A fine example of Branch activity will be the culmination of nearly twelve months by three Branches, Leeds and Sheffield, Tyne-Tees and Liverpool, in staging our Annual Conference which returns to a two night event at York on April 2nd, 3rd, 4th. A change of format has come about with the re-emergence, at my request, of the Conference Committee. By now, I hope you will have read the publicity circulated to all members and have noted some changes, starting with the publicity itself. Whilst we hope as many of you will attend for the full occasion, we have deliberately set out to condense all the papers into one very full day with the view to attracting a high number of day delegates also.

A wide variety of subjects will be presented, appealing to a wide section of our industry. So whilst there isn't a specific theme or title to the Conference, "York 93" is tripping off the tongue more each day. The most significant step for the Conference this year is the handsome sponsorship by the Howarth Timber Group who have so willingly responded to our request. They see this as very much a Yorkshire based event which obviously merits their support. This is a grand gesture by Howarths and one which with a good delegate attendance will do justice to their consideration of our Institute.

To our Conference Committee I extend my thanks and, in particular, to its Chairman, my fellow Council colleague, Geoff Bagnall who has put so much into seeing that the result will be an encouragement for our Institute Branches to once again become more involved at this level.

Well, what else has been going on? Probably the most important of all has been the restructuring of our courses in response to the changing needs of our industry. The first stage, the Certificate course, is virtually complete with perhaps the most useful advantage being the opportunity to take the course as an open learning, self-taught package. Hopefully, this will be in place in September of this year. Once again, I enthusiastically respond with my thanks to all those involved on the Education Committee. I am aware that collectively, so far, thousands of hours have gone into our new course. Our membership owes our Education Committee, under the Chairmanship of Past President John Brazier, a vote of thanks which in this Newsletter I pass on on their behalf.

Institute life carries on with our ever increasing need for new members. Does your Branch have any regular attendees at your meetings who still haven't joined? I suspect there are a few you could isolate. Don't forget our new category of MIWSc. If there is somebody you think suitable in measuring up to the requirements of this category, let us know.

Our special Working Party met recently for the second time and has come up with further ideas. With the recent strengthening of the Finance and General Purposes Committee, I have decided that the Working Party has served its purpose in its short existence and its ideas will be encompassed in those strengthened F&GP meetings.

"So far so good". Eighteen months to go, if you will have me, and a few more Branches to visit.

Keith Purcell AIWSc (President)

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EDUCATION AND TRAINING

EDUCATION — THE INSTITUTE'S CERTIFICATE COURSE

The new Certificate has been received with much interest and enthusiasm. For the first year, it was foreseen that it would be offered only on a day release basis but already courses are being introduced for it to be taken, with training support, by other means - by evening classes and by distance learning.

Students monitor their own progress by means of 'work books' and 'work projects' - some nine in all of the former and five of the latter. Satisfactory completion of the course requires that the work books and projects are completed to a training instructor's and the Institute's satisfaction. For the award of Certificate membership of the Institute, a candidate must also demonstrate his knowledge of the subjects in a three hour examination.

The work books cover the main topics of the technology of wood. They are not a teaching course - this is for others to provide - but, against a structured and informative text, set a student a series of questions for which he must seek out the answers. In doing so, he assembles his own reference book on a topic which is as detailed and informative as the effort he is prepared to give to its preparation and study. For many, other than those seeking Certificate membership, study of a workbook could provide a worthwhile introduction or refresher course to a topic. Those issued are listed below.

The work books have been prepared by lecturers involved in teaching the Institute's courses at the major colleges and the Institute acknowledges the great help and interest given by those involved in order to make a worthwhile course available to as many as possible.

Work books issued are: Wood structure and working wood; the Timber resource; Law; Moisture in wood and drying wood; Commercial and structural grading; Sawmilling and machining; Biodegrade and preservation; Adhesives and panel products; Utilisation.

J.D. Brazier FIWSc - Chairman Education Committee

AWARD TO BILL KEATING

At the Annual General Meeting of the Australian Branch, Dr. Ted Hillas paid tribute to Bill Keating for his long and dedicated service to the IWSc and to wood science education. On behalf of the Branch Committee, Dr. Harry Greaves, Chairman, presented a medallion mounted on a jarrah base. The wording on the medallion reads:-

"Presented to Bill Keating in recognition of outstanding service to the Institute of Wood Science (Australian Branch) 1992."

THE INSTITUTE OF STRUCTURAL ENGINEERS EXAMINE THE ADVANTAGES OF TIMBER

Members of the Western region of the Institute of Structural Engineers were present in large numbers for an annual symposium held at Bristol Zoo during November.

The title of this year's event was

Structural Timber - A Resurgent Material.

The following papers were presented:

Engineering Properties of Timber by David Woodbridge, Timber Tectonics Ltd;

Trussed Rafters, specification and design by Andrew Cavanna, The Cavanna Partnership;

Glulam Structures, Efficient and Aesthetic by Hugh Bryan, Technical Director Structural Timbers Ltd;

Structural Design to Eurocode EC5 by Peter Steer, Consulting Engineer.

The event, which included an exhibition of structural timber, components and treatments mounted by a number of the leading producers and consulting engineers in the district, will have done so much to increase the awareness and understanding of timber and its potential amongst this important professional sector of designers and specifiers.

PROMOTING MEMBERSHIP OF THE INSTITUTE

When, I wonder, did you last promote the desirability of membership, last week, last month, sometime during 1992?

As members, we are no doubt aware of the need to maintain a healthy membership list. It may however come as a surprise to many that the 1991/2 student membership was a mere 40% of the 1981/2 figure. I know that the levels of staffing in the trade have shrunk, but I very much doubt whether it is anything like a 60% reduction. Even with the new routes to membership it is acknowledged that the main source should be via the IWSc Certificate and Associate examinations.

When all is said and done the success of an organization rests on the value it provides for those it serves. This can be interpreted in various ways. One would be to measure the value in relation to output. Certainly this approach would be essential if one was considering a profit based concern. Equally one can argue that the viability of an organization is directly proportional to its strength as a representative body acting in a professional capacity on behalf of its members. It does not need much imagination to realize that the Institute falls within this category.

Accepting that this is so, what has the study of wood science and the related technology and practice of the timber industry done for you? Can you identify landmarks in your own career structure to which you can say that the result was directly, or even partly, as a result of formal study and subsequent qualification in wood science? I suspect that for many this is a question that has not been asked that often and one that may be difficult to answer. Inevitably work experience tends to blur the original sources of technical knowledge.

Certainly this is true as far as I am concerned. Reflecting back over some thirty years in or associated with the timber trade, I can identify instances when IWSc training has provided the bed-rock of knowledge that has enabled me to respond with confidence to many wood related issues and when it has helped me to move forward in a timber orientated career.

When I started in the trade the IWSc was the only recognized formal timber trade qualification. To some extent it still is. Since then however there have been enormous steps in the range and availability of training, education and qualifications. Some are technical, some related to business, some to management. The choice is wide and most of the knowledge and competence learnt will be of value in a professional and commercially based career. Needless to say, a sound foundation in product knowledge is vital, especially when one is witnessing the reduction of site and craft skills (both taught and practiced) in the construction industry. Equally the level of timber awareness taught in architectural and engineering colleges leaves much to be desired. This is yet another reason why it is vital for timber trade salesmen and managers to be leaders in the field of timber knowledge.

So what are we doing to further the interests of the Institute and to maintain and develop its stance as the professional watch-dog for the standards of timber education and as a professional organization that is respected internationally for its wisdom and expertise in wood science and technology?

There will be some who will argue that they are already doing much to promote the Institute. I acknowledge this, but with the UK membership standing at a little over eleven hundred, I am sure that there are many of us who could do more. One way in which this can happen is to, wherever possible, encourage new entrants in the timber trade to study wood science and to have as their goal the professional status of IWSc membership. It needs an effort on our part, as existing members, to take stock of what the Institute has meant for us and to ensure that its value and status is clearly recognized by others. With the restructuring of the IWSc examinations syllabus and easier access to training, there is now a much wider opportunity for learning.

I think that the time has come for a bit of unashamed flag waving!

David Woodbridge BA FIWSc. - Timber Tectonics Ltd., January 1993

EDUCATION AND TRAINING

PRIZE GIVING AT THE IWS^c ANNUAL GENERAL MEETING HELD ON 29TH SEPTEMBER 1992

Prize winners as in recent years were invited to join officers of the IWS^c for an informal gathering and sandwich lunch prior to the actual prize giving. This, of course, takes place in the main board room of the Timber Trade Federation, an appropriate venue to meet with those who will be playing an important role in the field of timber in the years ahead. The meeting affords a splendid opportunity to discuss in a most relaxed way the difficulties students may or may not have encountered during their period of study. Although from this academic year the new syllabus will be in operation with Work Books and Project Books and is somewhat removed from this particular teaching, it was still of immense value to be reminded of the problems that students encounter. The students themselves seem to genuinely appreciate the opportunity to talk with the officers of the IWS^c and to find out a little of the works and future aims of the IWS^c.

Fifty-six candidates were successful in the Final Examination held in June of which 30 passed at Associate level. The President said in congratulating all those who had been successful that pride in their achievement should readily be displayed by using the appropriate letters after their name. Much hard work had culminated in their success and they should be justly proud of their achievement.

Particular congratulations to the principal prize winners were given by Peter Latham who presented the prizes to:-

First Prize (the Bryan Latham Prize and a cheque from James Latham plc for £250) - Jillian Whitehead (TRADA).

Joint Second Prize (Swedish Finnish Timber Council's Prize of £100 cheque to each) - Simon Forster (Harcros Timber & Building Supplies Ltd) and Paul Hunter (Arnold Laver & Co Ltd). Mr. Latham said he was particularly pleased to present the First Prize, the Bryan Latham Prize, to Jillian Whitehead as she had chosen panel products as her optional module. Although Bryan Latham was foremost a pure timber man and did not really like sheet materials, he recognised as soon as they appeared on the market the revolutionary effect they would have on the industry and, in consequence, his company became dominant in the panel products field.

Mr. Latham went on to reflect upon the difficult economical times the Timber Trade was experiencing but suggested that now was the right time for both Industry and the IWS^c to gear itself for a more prosperous future. Product knowledge in any industry was essential he said and for the Timber Trade the role played by the IWS^c was immensely important in ensuring that young people had the opportunity to acquire that much needed knowledge.

The students listed opposite were successful in this year's examination and are warmly welcomed as qualified members of the IWS^c. They satisfied the examiners in both the three hour compulsory module and the three hour optional module.



ASSOCIATE LEVEL

Amy M.
Andy A.
Boler S.
Cornelius A.
Dalton D.
Dentith C.
Dodd Jacqueline
Forster S.
Gordon R.
Gregg I.A.
Grindrod J.
Hornsey N.
Hunter P.
Jarvis R.
Jones P.
May K.
Moorby Nicola
Mullarkey A.
Munt Janet
Palmer M.H.
Parkin J.
Paterson S.
Peterson R.B.
Seaward J.
Shepherd C.
Skinner G.
Staley P.A.
Taylor M.
Thomas J.E.
Trill R.D.C.
Wastnidge D.
Whitehead J.

CERTIFICATE LEVEL

Bailey D.M.
Beales A.
Brown D.W.
Clarke R.
Edwards D.
Edwards D.B.
Garman J.
Geary C.
Gordon W.
Hall A.B.
Hicks C.
Jones P.A.
Karlsson-Waller Hanna
Lindley S.
McAuley P.J.
McCaffrey J.D.
Morgan J.
Murdoch V.
Naisbitt J.A.
Parker J.
Ream J.
Roberts J.H.B.
Shipston I.
Smith J.
Sykes C.
Taylor G.
White R.
Whiting R.

Timber in Construction
Yard Operations
Timber in Construction
Timber Drying
Panel Products
Timber Drying
Yard Operations
Timber Trade Practice
Timber in Construction
Timber Trade Practice
Biodegrade of Wood
Timber Trade Practice
Timber in Construction
Timber in Construction
Yard Operations
Timber in Construction
Timber Trade Practice
Timber Trade Practice
Timber in Construction
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Yard Operations
Timber in Construction
Panel Products

Timber Trade Practice
Timber Trade Practice
Biodegrade of Wood
Yard Operations
Timber Drying
Timber in Construction
Yard Operations
Yard Operations
Timber in Construction
Yard Operations
Yard Operations
Timber Trade Practice
Timber Trade Practice
Panel Products
Timber Drying
Panel Products
Timber Trade Practice
Biodegrade of Wood
Yard Operations
Yard Operations
Panel Products
Timber Trade Practice
Biodegrade of Wood
Timber in Construction
Timber Trade Practice
Biodegrade of Wood
Timber in Construction
Timber in Construction

Harcross Timber & Bldg Supplies
Harcros Timber & Bldg Supplies
Arnold Laver & Co Ltd

Arnold Laver & Co Ltd
Morgans Mahogany
Harcros Timber & Bldg Supplies
Harcros Timber & Bldg Supplies
Harcros Timber & Bldg Supplies
James Latham (Western)
Timbercare Remedial
S.H. Montgomery Ltd
Arnold Laver & Co Ltd
Cox Long Ltd
Harcros Timber & Bldg Supplies
Meyer Int. Forest Products Ltd
Manson Timber Ltd
Meyer Int. Forest Products Ltd
Timbmet Ltd
Chelmsford College of F.E.
Harcros Timber & Bldg Supplies
Meyer Int. Forest Products Ltd
Harcros Timber & Bldg Supplies
Manson Timber Ltd
Arnold Laver & Co Ltd
Arnold Laver & Co Ltd
Harcros Timber & Bldg Supplies
Meyer Int. Forest Products Ltd
Parker Kislingbury Ltd
Harcros Timber & Bldg Supplies
Arnold Laver & Co Ltd
TRADA

Meyer Int. Forest Products Ltd
Hunter Timber Group

Meyer Int. Forest Products Ltd
Arnold Laver & Co Ltd
Manson Timber Ltd
Meyer Int. Forest Products Ltd
Meyer Int. Forest Products Ltd
Joseph Griggs & Co Ltd
Harcros Timber & Bldg Supplies
Cox Long Ltd
Meyer Int. Forest Products Ltd
John Fleming & Co Ltd
G. Mason & Co Ltd
J.P. Corry & Co Ltd
Vincent Murphy & Co Ltd
Price & Pierce Ltd
Travis Perkins plc
Howarth Timber Ltd
Howarth Timber Ltd
Phoenix Dransfield Ltd
Meyer Int. Forest Products Ltd
TRADA QAS Ltd
Joseph Griggs & Co Ltd
James Latham (Northern)
Akzo Coatings Ltd
Manson Timber Ltd
Travis Perkins plc

Protection Journal

(Volume 2 No. 1) is now available from the IWS^c Office.

BRANCH LINES

YORK '93 - THE CONFERENCE

As Secretary of the Leeds and Sheffield Branch of the Institute, I can say on behalf of all our Branch members and those of the other "Northern Branches", that we are very much looking forward to welcoming you to the YORK '93 ANNUAL CONFERENCE! - 2/4 APRIL 1993.

The conference promises to be not only a very informative and useful conference, but a major opportunity to beat back the gloom of the recession and meet up with old and new friends and enjoy the beautiful surroundings of YORK.

It is refreshing to see Howarth Timber supporting the conference through its generous sponsorship, and other firms such as Hickson Timber Products Limited maintaining their commitment and long standing support of the Institute.

If you are feeling the blight of the recession, and feel that you can't afford the full residential attendances (despite the price being held at last year's level), WE HAVE THE ANSWER! - This year we have specifically planned to make the day attendance of the conference EASIER, MORE AFFORDABLE AND without missing out on the SOCIAL SIDE of the conference:

- ALL PAPERS ARE ON THE ONE DAY - 3 APRIL 1993, WHICH IS A SATURDAY AND MEANS PRECIOUS BUSINESS TIME WILL NOT BE LOST.
- DAY DELEGATE ATTENDANCE INCLUDES: CONFERENCE ATTENDANCE, CONFERENCE PACK INCLUDING COPIES OF ALL THE PAPERS, MORNING COFFEE, LUNCH, AFTERNOON TEA.

AND! perhaps best of all - the day delegate cost has been slashed by approximately 30% without any drop in the quality of the conference.

So come on and have an enjoyable, informative, relaxing and recession busting day in YORK - I look forward to meeting you there!

BOOKING FORMS ARE AVAILABLE FROM FREDA ROBINSON AT THE INSTITUTE OFFICE

David Carney, AIWSc - Secretary, Leeds & Sheffield Branch

BRANCH LINES - WESTERN COUNTIES BRANCH

The 1992/93 lecture programme got off to a flying start with a talk by Graham Mottram, Curator of the Fleet Air Arm Museum, on 1914-18 war fighter aircraft. The Sopwith Camel was the main vehicle of discussion and Graham brought along a superb model of this plane to support his presentation. Spars were made from spruce or ash and ribs from spruce and birch with a plywood canopy around the pilot to which the engine was attached. Fascinating statistics emerged including the fact that over ¼ million wooden propellers were manufactured during WW1 from Cuban, Honduran or Nicaraguan mahogany and that they were balanced to turn by the weight of a cigarette paper. Wings were held on to the fuselage by friction fitted steel rods alone with no securing nuts!

On 20 October Arthur Morrell of the International Tropical Timber Organisation gave a relaxed and informative talk on sustainability of forest resources backed up with plenty of literature from producing countries such as Malaysia and the Forests Forever campaign. Tropical hardwood veneer as well as veneer from European sources is used for the production of wind turbine blades in the UK. On 17 November Clare Hacker and Ian Bond gave an account of their postgraduate research work at Bath University on the fatigue properties of wood composites. Clare concentrated on the assessment of resin systems for veneer bonding whilst Ian gave a review of the wind energy scene worldwide and explained his fatigue results. It is very encouraging that wood appears to provide the best combination of properties for turbine blade applications in competition with steel, aluminium alloys and composite materials.

In January a small select audience were treated to a fascinating presentation on domestic wood burning by Peregrine Bruce of the New Forest Woodburning Centre. His historical review of the fireplace, combustion and stoves took us from cave dwellings to the modern home. The need for wood to be dried before combustion to prevent smouldering was emphasised and futuristic, highly efficient stove designs were discussed. On a final sober note Mr Bruce outlined his efforts to mass-produce simple stoves for use in what was Yugoslavia to prevent deaths from freezing conditions and to allow people to cook in this time of conflict.

In the final part of our programme we have a presentation lined up on power fastening tools as well as an outside trip to Square Sail of Bristol to view restoration techniques for timber boats. On 16 March we look forward to welcoming our President, Keith Purcell, and Geoff Bagnall to a talk by Malcolm Oxford of STORA on "Converting logs to lumber preceded by some supper. Despite the excellent programme we have on offer our large membership is not turning out in large numbers on Tuesday evenings. Banish the television and enjoy some fascinating mental stimulation with your local branch instead! Finally I would like to thank Dave Clark of Clarks Wood Company Ltd. of Bristol for letting us use his company's splendid maple-lined boardroom for our meetings.

Martin Ansell, FIWSc - Western Counties Branch Chairman

SCOTTISH BRANCH NEWS

Our autumn branch meetings were held at our base at Stirling Enterprise Park, Stirling, where our members and guests were given two talks, one on making structural repairs using the resin-bonding process and the other on manufacturing of oriented strand board for the panel products market.

Mr. J. Carragher, Technical Director of Rotofix Resins (N-W) had a splendid array of specimens and visual information on display. His talk covered the design, techniques and practical experiences of making resin-bonded joints for renewing dilapidated beams or upgrading beams to carry a greater loading, using steel or glass fibre reinforcement. Fissures may be gap filled and repairs made by injection methods. We had ample time to go round the exhibits and ask questions.

Mr. Irvine Flett, Technical Manager of Norbord Highland gave a fine presentation, well illustrated, on the design and manufacturing of oriented strand boards using our indigenous redwood, explaining some of the moisture related problems encountered in performance and discussing ways of overcoming these defects by preconditioning the end product and by due attention to good site practices. End uses, quality control and technical acceptability were expounded.

This month, we are to be honoured by the visit of Dr. Gavin Hall, Technical Director of TRADA Technology, to deliver his presentation on the Charter for Dry-graded Softwood, at the University of Glasgow.

Continuing our policy to hold meetings in other areas away from base, in April, we have arranged to visit the vessel "Unicorn" in Dundee Harbour to see and hear about the preservation work in hand.

We are hoping to end our 1992/93 programme with a flourish when we have planned to hold a forum type branch meeting entitled "Forests Forever....?"

Our branch committee have decided to alter your programme, to hold a separate AGM followed by a talk by a speaker from Scottish Nuclear Ltd. in May this year at the Stirling Enterprise Park. This will provide greater flexibility in arrangements for the forum meeting in June, which is to take place at the University of Glasgow. Details of these changes are to be sent out to members and guests this month.

Guests to be invited to this environmental forum will include executive members of Forests Forever Campaign, World Wide Fund for Nature (WWF), Swedish Finnish Timber Council, COFI (British Columbia) and other interested bodies in conservation and the timber industry. A panel representing high level expertise in sustainable forest management and conservation of the environment is to be led by our President Keith Purcell as chairman, with audience participation by question and debate. Senior executives of the timber industry in Scotland are to be invited to take part as well as our Scottish Branch membership and guests.

Eric Wyllie AIWSc - Branch Secretary

THE DEVELOPMENT OF THE CHAIRMAKING INDUSTRY IN HIGH WYCOMBE

THE DEVELOPMENT OF THE CHAIR MAKING INDUSTRY IN HIGH WYCOMBE

The late eighteenth century saw the rapid development of a chair making industry in the town of High Wycombe. This evolution illustrates a more general change in social structures across the country, a period which sees the labouring and artisan classes acquiring the means to own better quality furniture. Several parts of the Country experience the spontaneous growth of regional, vernacular chair styles: the rush seated ladder-backed chair in the North and the Midlands, the Windsor chair in the South and North-West, and the hybrid East Anglian tradition with its reliance on cabinet making rather than turning skills. These regional styles feature simple construction methods and locally available materials combined with a level of skill and artistry which commands much respect today.

The Thames Valley chair making tradition, centring on High Wycombe, is famous for its Windsor chairs. The location of the industry did not begin as a random choice, but reflected the proximity of the London market and the busy London-Oxford road which provided the means for transporting the finished product. However, the raw material in the form of the Chiltern beechwoods was a unique factor, and the Chilterns have been a dense area of woodland since records began. The Domesday book of 1086 records the Chilterns as second only in size to the Weald of Kent and Sussex. In later centuries the woodland became more of a managed resource harvested and coppiced as a valuable crop rather than indiscriminately cleared.

Traditionally the making of Windsor chairs involved a number of specialist skills, and individuals would usually work on one branch of the trade alone. Few craftsmen made chairs from start to finish. The first individual in this process was the wood turner or Bodger, who worked in the woods while the rest worked in groups in small workshops and later in larger factories. The Bodgers provided all the legs and stretchers for the chairs. Bodging is not a very well documented trade but from the few documentary records which do exist the researcher can trace the early development of the craft. In 1798 a census taken for military purposes records 58 chair makers in the Wycombe area - who would have supported the specialist Bodgers working in the woods. The Bodger worked by selecting particular stands of trees and moving from place to place setting up temporary shelters as he went. This was easier and cheaper than transporting the wood to a workshop elsewhere. After felling, the logs were cut into lengths known as billets, the wood split while still green with an axe, a wedge, and a mallet. Further shaping of the rough billets was done on a drawshave. The billet was then finished on the pole lathe, the largest piece of equipment used by the Bodger, powered by a long, flexible pole with a foot operated treddle.

In 1970 there were four furniture factories recorded as operating in High Wycombe. At the height of the Industry in the 1870's there were over 140 factories in the area producing over four thousand chairs a day. This development in the nineteenth century lays the foundations for the present industry, and the geographical spread of furniture factories varies very little from 1875 into the 1960's.

The factories in the town tended to be owned by members of a few families. Big nineteenth century factories, for example Skull and Gommers, amalgamated to become the big operations of today like Parker Knoll and Ercol. Chair making businesses were also established at the same time in surrounding towns and villages such as Amersham, Chesham and Stokenchurch. Simple brick workshops were typical with weatherboard on the first storey. Though most of these workshops have been demolished, it is still possible to look down some back streets and see the small windows and weatherboarded fronts which betray the presence workshop.¹

In these factories craftsmen rented bench space on a weekly basis, and were paid on a piece-rate basis for most of the nineteenth century. While the Bodgers produced the legs and stretchers, the workshop was responsible for making the rest of the chair and for its assembly. The workers were referred to by the nature of their task. The 1851 census in High Wycombe lists 23 such skills - a man could be a back maker, a benchman, bottomer (seat maker), chair borer, seat caner, chair polisher, chair painter, framers and finishers. Mechanisation within the industry arrived in the middle of the century. As with every other industry, this caused a revolution, and several strikes, but it did not mean the end of jobs - in fact this was the period of greatest expansion.

The market for chairs grew as the nineteenth century progressed. Examples were sent abroad and to many international trade fairs. Wycombe chairs were ordered for the Crystal Palace Exhibition in 1851 and William Skulls firm supplied four thousand chairs for St. Pauls Cathedral. Most firms would produce catalogues which went out to retailers and institutions, and some employed travelling chair salesmen who would take a wagon load of chairs around the country to sell to anyone who would buy them. The mechanisation of the industry sees a vast increase in the repertoire of chairs made by the individual factories - the basic Windsor features were developed way beyond their vernacular roots.

By 1875 the Industry was focussed to the west and east of Wycombe Guildhall. The following 40 years saw little expansion of the core geographical area and also the nature of the furniture produced.² The destruction of the two world wars was a great spur to production, and two great innovations in the post war period - plywood and hire purchase - had a great impact. By 1950 the Town had 8.9% of the national industry measured by turnover - by 1960 it was 13.4% with 9000 employed, still mainly in the town.

For High Wycombe the furniture industry is an industry like any other - superseding lace and paper making as the biggest employer of people in the town and surrounding area. But this is where the similarity ends - for it is chair making which turns Wycombe from a small market town into a thriving manufacturing centre with an international reputation for its products. From 1880 until the present day High Wycombe was and still is one of the largest centres for furniture manufacturing in Europe.

(Shortened version of the illustrated talk given to the High Wycombe Branch on 2nd December 1992).

Philip Crouch - Curator, Wycombe Local History and Chair Museum



Reference

Coppock, J.T. *The Chilterns*, The Geographical Association, 1968.
Cotton, B.D. *The English Regional Chair*, Antique Collectors Club, 1991.

¹Glenisters, Frogmore, High Wycombe
E.M.F. Brown, High Street, West Wycombe

²In 1939 the Borough of Wycombe had:

4 Cabinet makers
138 Chair makers
8 Upholsterers
36 Furniture makers

SIDE LINES

IWSc EXAMINATION

The following ten questions were posed in the recent IWSc Examination requiring short answers in note form of no more than 30 words. First correct answers from Newsletter readers will receive rave notices from Chairman of Education Committee.

1. Parcels of rough-sawn ash and beech boards have been mixed. Given a sharp knife and hand lens, how would you separate the two timbers?
2. Why do dead knots often fall out of a piece of wood when it is dried whereas live knots stay in place?
3. Why is it easy to split a piece of wood along the grain but very difficult to do so across the grain?
4. Why is it necessary for a beam to be both strong and stiff to sustain a load adequately?
5. Give two methods by which the susceptibility to decay of a timber can be assessed.
6. What differences are there in composition and lay-up between flake board and oriented strand board (osb)?
7. You have been asked to provide a notice board for indoor use in a local community centre. What would you use for the surface of the board and why do you consider it to be suitable.
8. A mahogany chair leg has broken with a short, brash fracture. What is the likely cause and what would you look for to confirm this?
9. A round fence post, treated with CCA, has been found, after a few years in service to have decayed in its centre, though the outside is still sound. Suggest why this might have happened.
10. What is the pine wood nematode and what is its significance for shippers of Canadian sawn softwood?

THE TIMBER TRADE TRAINING ASSOCIATION SPONSORS ONE OF ITS STUDENTS ON THE ANNUAL CONFERENCE

This year the TTTA (the training division of the TTF) is sponsoring Mark Cullingworth of Nixon Knowles and Co Ltd, Doncaster branch, to attend the York Conference.

Mark, now in his fourth year of funded study under Timberstart, is currently studying at Mid-Warwickshire College and will take his Final IWSc Examination in June.

The sponsorship is an example of one of the many ways in which the TTTA helps and encourages training within the industry.

AMERICAN HARDWOOD EXPORT COUNCIL - LITERATURE

Whilst many readers will be aware of both the existence of the AHEC and its activities, some will not be conversant with the availability of publicity material.

A great deal of media attention is now given to the ecological factors governing the use of raw material. The Timber Trade has not escaped this unwelcome scrutiny into its practices, and the "Rape of the Forest" is terminology representative of environmental groups with extremist views.

The AHEC through its offices in Europe, North America and the Far East have attempted to counter some of these more aggressive opinions by publishing literature that contains factual evidence of sound harvesting policies that are enforced by legislation in the U.S.A. Their specifications brochure is freely available, and apart from containing ecological data, also provides information on the physical and working properties of nearly thirty North American species.

In addition they also distribute the Forest Resource Fact Book, which as its green cover suggests illustrates most convincingly the committed environmental policies to which the industry adheres, to ensure the longevity of the North American hardwood forests through natural regeneration and replanting.

The AHEC would be pleased to supply readers with appropriate literature on initial application to American Hardwood Export Council, Regent Arcade House, 19-25 Argyll Street, London W1V 1AA Tel: 071 287 2724 - Fax: 071 287 2628.

BWPDA 1993 CONVENTION

The Convention is returning to St. Catharines at Cambridge for 1993 and will follow the shortened timetable adopted for the 1992 Convention held at Stratford-upon-Avon. It will start at lunch time, Wednesday, June 30th, with delegates departing lunch time, Friday July 2nd.

A varied programme of papers has been prepared which should interest all sections of the Association.

This is an important forum for the industry and an opportunity to meet colleagues and competitors in a friendly, relaxed atmosphere.

*At meetings and such
With an effort of will
I always contrive
To keep perfectly still
For it takes just one look
Of contrition or pity
And wham! There I am
On another Committee.*

Ed.

DATES FOR YOUR DIARY 1993

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|-------|-------|---|
| March | 18 | CTIS Examination — BRE, Garston. |
| March | 18- | Daily Mail Ideal Home Exhibition |
| April | 12 | — Earls Court. |
| April | 2-4 | IWSc National Conference — York. |
| | 21 | CTIS Examination at Stirling — Scotland. |
| May | 5 | CTIS Examination — BRE, Garston. |
| | 9-12 | Kitchens, Bedrooms & Bathrooms Equip. Exhib. — Alexandra Palace. |
| June | 18 | IWSc Examinations. |
| June | 30- | BWPDA Convention, St. |
| July | 2 | Catharines — Cambridge. |
| July | 1-2 | The 1993 Eurowood Oxford Fire Conference — Mansfield College, Oxford. |
| Aug. | 14-20 | ICOM-WOAM 5th Triennial Meeting — The Spring Point Museum, South Portland, Maine. |
| Sept. | 16-19 | Self Build Homes Show — Alexandra Palace. |
| | 18-20 | Woodworking Industry Exhib. — Wembley Conference Centre. |
| | 23-26 | National Woodworker Show — Sandown Exhibition Centre. |
| Nov. | 28- | Interbuild |
| Dec. | 3 | — NEC, Birmingham. |
| Dec. | 3 | IWSc Examinations. |

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| July | 11-15 | PACIFIC TIMBER Engineering Conference — Gold Coast, Australia. |
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THE 1993 EUROWOOD OXFORD FIRE CONFERENCE

To be held 1-2 July at Mansfield College, Oxford, will review developments and research over the past decade and put these into the context of current European activity in standardisation and legislation. It will also look forward at the direction activities should take in the future to ensure that timber and wood-based products are dealt with equitably in the standardisation and legislative process.

The conference is organised by TRADA, on behalf of Eurowood, the umbrella organisation for European research establishments involved with wood and related materials.

One of our members has a complete set of Institute Journals from 1st Edition and also a set of BWPA Convention records from 1951-1989. If any member is interested in acquiring these, would they please contact the office.

CORPORATE MEMBERS

IWSc wishes again to record its thanks to the following Corporate Members for their continued generous support.

J. Alsford Ltd., Anglo-Norden Ltd., John Boddy Timber Ltd., BSW Timber plc, BPIB, The Buckinghamshire College, Coillte, Cuprinol Ltd., James Donaldson & Sons Ltd., EOLAS, Fairlight Preservation, Forest Service N. Ireland, Fosroc Ltd., Harcross Timber & Building Supplies Ltd., Hickson Timber Products Ltd., James Latham plc, Marlow & Co. Ltd., F.W. Mason & Sons Ltd., Meyer International plc, MBM Forest Products Ltd., Price & Pierce Ltd., Rentokil Ltd., Timber Trade Federation, Timbmet Ltd., TRADA, Travis Perkins plc, Henry Venables Ltd., Wickes plc.