



WOOD SCIENCE PAYS

Wood science has helped the timber trade turn a profit, says John Park



Last month Martin Ansell provided a pocket history of achievements owing to wood science and finished with the question "What would we do without wood science?" I should like to take you back a step and ask the question – "What is wood science?" Might one definition, in certain circles, be: 'the esoteric discipline that bears no relationship to the buying and selling of wood and wood products'; not unusual within the

timber trade to find it being dismissed as irrelevant. That is not new, unlike wood science, which, relatively speaking, is. Now, I don't want to sound too negative – although I'm sure there are those who would hold with that definition – as I know there are companies striving to redress the balance; it's just that it's a good opener for what follows!

I particularly like the truism, penned by Borg Madsen – "The longer the human race has used a material the less it knows about it" – as it reflects the age-old approach of the handing down of skills from one generation to the next and, because wood has been in use for rather a long time, we can but wonder just how many generations that actually is!

In the beginning was the wood, which was good because civilization has grown on the strength of it. Then over time there came, to name but a few, the master carpenters, wheelwrights, coopers, the luthiers and the bodgers, most beginning their careers as apprentices who all learned and developed their particular crafts and skills and all with no wood science. (In case you didn't already know, a 'masterpiece' was a piece made by a craftsman in order to be accepted within their guild as a 'Master')

But they did have two things in common: first was that they all understood their wood intimately, what worked and what didn't and how to avoid the latter, and in many cases they would have been supplied by merchants on whom they relied for their wood and who would have known and prided themselves on meeting their specifications; second was time. But then the world changed as did, in some sectors, the attitude towards wood. Brave new world and all that and all those wonderful new materials – note that truism!

One outcome of the Industrial Revolution was more people, lots of them, and the resulting urbanisation. More people, more housing, more stuff and wood still figured large in the new industrial world. But what they needed then was speed; unfortunately wood and speed just don't go well together. The amount of wood needed to meet demand necessitated rapid turnaround from harvesting to use with the inevitable result

John Park is a board member and immediate past chairman of the WTS and manager of Canada Wood UK

commensurate with lack of care, inadequate drying and the fast buck. Allied to that increased demand was the growth of supply of wood from all provenances, which also involved the adoption, over many years, of new species as each became available.

And because, as you know, no two wood (tree) species are the same, that is where wood science stepped in and what did those wood scientists do? For each existing and all those on the burgeoning list of new commercial species they determined: density; mechanical properties; drying properties and necessary kiln drying schedules; movement characteristics; woodworking properties; blunting effect on tools; natural biological durability and resistance to impregnation of wood preservatives.

Wood science is also inextricably linked with wood technology, the latter developed on the basis of wood science. All that can be summed up quite simply as 'how wood works' and knowing how wood works facilitates the ability to get the best out of wood and, most importantly these days, as quickly as possible – although I still believe one of the worst things ever for wood was just-in-time delivery.

What is wood science? An essential scientific discipline enabling the timber trade to turn a profit. ■

Below Knowing how wood works facilitates the ability to get the best out of it

PHOTO.
BIOCOMPOSITES
CENTRE



The Wood Technology Society

A Division of the Institute of Materials, Minerals and Mining