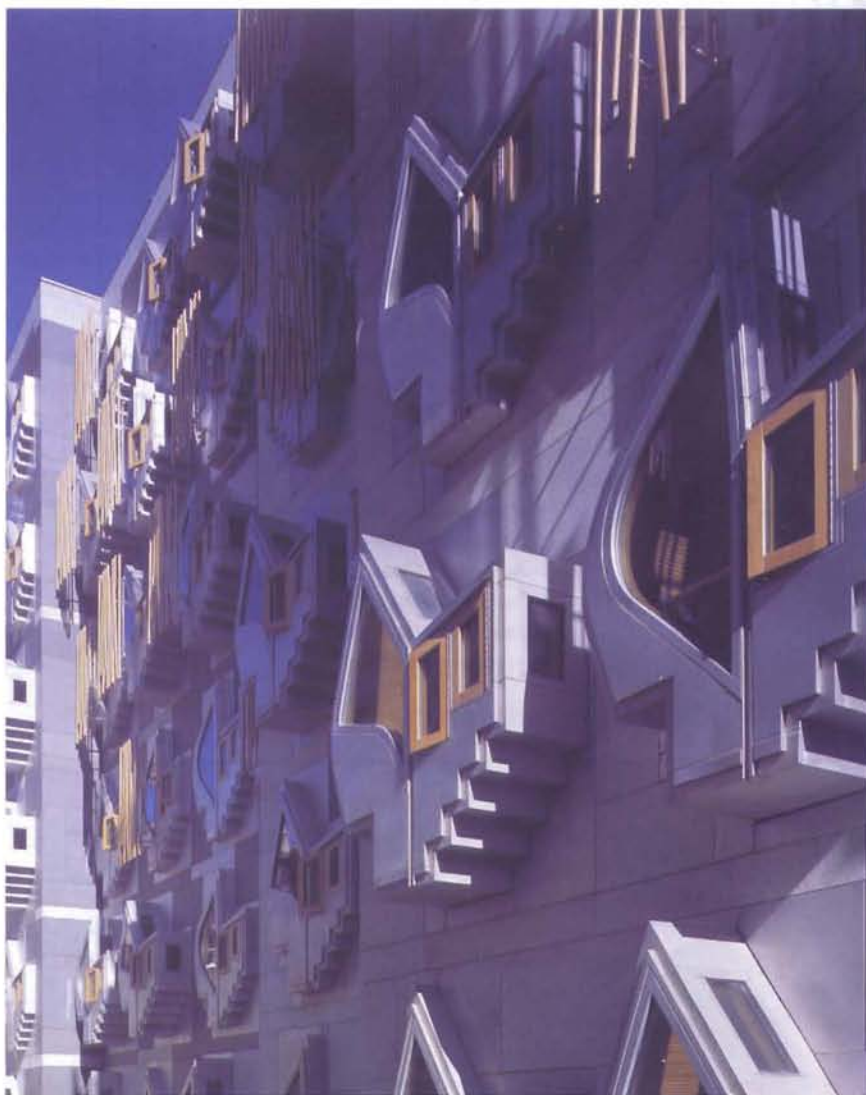


# Scotland's new timber architecture

Is there a new, increased interest towards timber in Scotland, home to the highest woodland cover in Britain? Over the next three issues of BFF, Oliver Lowenstein will be looking beyond headline Scottish architectural projects, to uncover the main players in the new Highland architecture ...



Turn your head 360 degrees from any part of Edinburgh's Princess Street grand parade, and one thing's for sure. The skyline you'll see is one of a stone city. This is the same, wherever you head in the immediate vicinity of the city. An innocent visitor might imagine that Edinburgh, the capital city of a country with easily the largest forest cover of Britain, would have something of a vernacular timberbuild tradition! But as any Scottish architectural fan will tell you, unlike neighbouring Norway, out across the other side of the North Sea,

there is no indigenous timber building tradition to speak of.

With a forest cover of at least 17% (the highest for at least 100 years), Scotland's prime timber resource, Sitka spruce and Scots pine are the two mainstay timbers. Regardless of this, about four fifths of timber used in construction is still imported. However, significant changes do seem to be afoot, chiming with the aftermath of the de-evolved Scottish government: a number of policy directives – principally *'Planning 72, Growing and*

This and previous page:  
the Scottish parliament  
building designed by  
RMJM. Photos by Keith  
Hunter

*Improved Dissemination of Technical Knowledge and Information*; the opening in 2003 of the UK's first timber engineering department at John Napier University's Centre for Timber Engineering (CTE); increased investment by major industry players in R&D; plus a big push by the Scottish Forestry Commission (SFC) to put its woods back on the map. All leading, hopefully to softening a historic and deep seated aversion to wood in Scotland, which the absence of it, as a material in both vernacular and mainstream buildings, has had.

Whilst this could be interpreted as the beginnings of a groundswell in change towards using timber in construction, caution may still need to be exercised. Various professional parties continue to display a reluctance towards the material, particularly planning departments and insurers, even if these reservations do appear to be beginning to shift. According to Neil Sutherland, a timberbuild proponent, he believes that traces of a minor revolution are detectable in such 'naturally' conservative government agencies as the SFC and Scottish National Heritage (SNH) who also have a new building (see page 22 for story). Yet, the perennial problem of reliability of both sourcing and quality, plus the all powerful cost and supply chain factor (more later) continue to plague home grown timber, which means that Baltic and other imported woods remain the first option. One way round this would be the upping of the knowledge and skills base, hence the launch of the CTE so that smarter detailing and design can be achieved. Furthermore, new and exciting possibilities are being developed with the emergence of sustainable engineered timber in various forms, building on early successes such as, I-joint beams and glulam, which bring opportunities for better use of home-grown wood.



For each sceptic I talked with, there did seem to be another who balanced it and was confident that things were beginning to roll and more and more actual buildings are appearing. Peter Wilson, architectural writer and PR man at CTE, is in the process of preparing a non-technical, visual record entitled 'New Timber Architecture in Scotland', featuring at least 100 recent timberbuild projects.

All this reinforces the impression that a new timberbuild culture is developing momentum, even if essentially it is still happening at the margins. Primarily a rural phenomenon in a country which remains largely rural, examples of it can be found across domestic, commercial and public building types, and from dazzling showcases through to housing estates in cities, providing a kind of evidence of a gradual shift in architectural flavour. Not all is strictly sustainable, but much of it is being

driven by ecological consideration. The endgame to this path of thinking is the vision of a future-forested Scotland that provides an abundant amount of renewable building resource and materials, as well as a level of biomass meeting the country's energy needs, making it self-sufficient in both of these. Ridiculously utopian? Of course, and therefore completely unrealistic and impossible? Well maybe. But as a sixties slogan had it, 'believe in the impossible.' And also maybe, in a time of Stern warnings and the current 'green moment', as mediated through mainstream media, such an approach may yet be seen to have a kind of long term pragmatism, that both public and professionals are beginning to realise is needed.

Wood is certainly at the symbolic heart of the New Scotland, in the form of the devolved assembly parliament building, by the late Spanish architect Ernesto Morales. In this controversial

and high profile recent architectural excursion in Scotland, timber has been used extensively, though primarily for cladding and both internal and external ornament. The building has been vigorously promoted as a sustainable building, although its costs spiralled out of control, and trapped many involved professionally in court cases, not least the Edinburgh architects RMJM, of whom more later.

Beside the Parliament building, the last few years have brought a run of new catchy, sizeable and public-oriented new structures to prick the taste buds of the architecturally inclined; built from timber and pushing one engineering boundary or another. The Maggie's Centres did it first, with Frank Gehry's admittedly completely non-eco Dundee building opened towards the close of 2003 and highlighting craft, computers and complexity. Then again, eighteen months later, in mid-2005, with the Inverness Maggie's Centre completed by Glasgow practice, Page and Park<sup>1</sup>. This expanded the vocabulary of balloon frame into something visually sexy and previously unthought of. As Sebastian Tombs, Chief Executive of the recently formed Architecture and Design Scotland (ADS) says, the effect of these iconic timber buildings, 'have opened up the possibilities for the architectural community as much as they have enabled clients to see what is possible, not just in terms of design but in materials.'<sup>2</sup>

### After the Parliament building: ECOSpace

The architects bought in to create the Lauder College's new ECOSpace (see photos right and above right), were the Scottish, International practice RMJM, referred to, in the city, as 'Rumjum's'. RMJM are the architects who have the unfortunate position of being the practice who got into such a mess with the Edinburgh parliament. The tremors

of that scandal continue to echo, both politically and within the architecture scene. The building though, the creation of the Spanish architect, the late Morales, looks fantastic, and much wood is used for dramatic effect. It is claimed the Parliament building was a sustainable project, as RMJM has in-house expertise in sustainable architecture.

ECOSpace has been RMJM's next timberbuild, but to say it is different is a dramatic understatement. Go to the other end of the spectrum, to functionality, and simplicity of design, and you'll get the picture. There is little connection beyond chronology, and the office points to a previous timberframe they worked on for the Scottish Pensions Association in Galashiels, about three years ago, as informing this new design. Where Galashiels was given a BREEAM Very Good mark of quality, the aim is for excellent with ECOSpace.

Part extension, part discreet and separate building, it wraps around the south of the college, in effect an extended L. At a cost of £2.4 million it isn't a cheap investment, and one quickly realises that pretty much all the eco tickboxes have all been assiduously filled. Sitting some four to five metres below the adjacent playing field and car park, while level with the older building, required extensive excavation. The vertical axis consists of six new workshops, while the horizontal line comprises the ASPIRE centre, originally the focus of the project; a dedicated learning space for working with adults with learning disabilities and also those with physical disabilities. The unit aims to help nurture self sufficiency, so one room imitates a real bedroom so as to develop relevant home living skills. At the front of this section an organic café is planned.

The workshop spaces, are intended as a showcase for what the college does, highlighting sustainability. Lauder is one of four sites across Fife, with a follow through sustainable agenda as a stated strategic aim. Experience of the spaces is also intended as learning and teaching tools, providing clear and simple examples of carpentry and building processes, right there in and around the workshops. The workshops themselves consist of two joinery rooms (145m<sup>2</sup>); one wood working machine room (130m<sup>2</sup>); one painting and decorating room (125m<sup>2</sup>); a furniture workshop (60m<sup>2</sup>); and a furniture cabinet room (130m<sup>2</sup>). There is also a furniture restoration room. Each of these is accessed by the main corridor, running the length of the building and dividing the newbuild from the immediate older sections of the college, also in the process of being revamped. The corridor, originally planned to reach out at the entrance, is the visual centrepiece of ECOSpace's timberbuild ambitions, twenty five post columns and beams stretching the sixty metres of the building.

Originally designed as a two storey, the ASPIRE section requirement for full access meant a re-scaling to single

Left and above: the new ECOSpace building at Lauder College. Photos courtesy of RMJM architects





storey, lowering the energy needs. While the brief outlined using as much locally sourced timber as possible, the result has shown the limits of availability of larger oak timbers in Scotland. Although Douglas was used for the columns, glulam makes up the beams, all exposed in each of the workshops. Also left partially exposed are the dust-sucking ducts, which clear the air of each of the workshops of sawdust and other woodwaste.

Externally, green oak cladding is varied between vertical in the

centre, and horizontal to the side of the build. The oak had to be sourced from England, and even France, after the shortfall of Scottish green oak was realised. The cladding will remain uncoated apart from a non-toxic fire retardant coat. Inside OSB joins the walls to the columns. The RMJM architects describe the detailing as simple and honest, expressing the beams and columns are clearly visible, as are the walls, so that the detailing is accessible to anyone visiting, and more immediately relevant to those working in the workshops.

Completed by the Scottish arm of Carpenter Oak and Woodland, the specialist bespoke carpenters, for whom according to COW's, Scott Fotheringham, this was the most ambitious timber-engineering contract since Page & Park's Inverness Maggies build. Given that all the timberwork is visible there was little or no room for error, with both timber and carpentry needing to be completely accurate. When the trusses were crane-lowered in, each beam slid in, inch for inch. Form in this instance quite definitely follows function.

Other parts of the sustainable brief include good natural light, pouring into each of the workshops through the north face of two of the three sawtooth roofs. The first of these, at the south facing front end, is ramped up with nine See Can solar panels. The main windows are Velux, while for the larger vertical windows, NorDan was specified. These are all linked to a building maintenance system, while heating is also automatically controlled. Parts of the roof are to be bedded with sedum grass, and rainwater runoff is harvested. Flooring is primarily linolium, organic paints have been used internally, as has natural wool insulation.

If the inability to procure native oak is instructive, ECOSpace still provides an interesting mainstream instance of how timber and sustainable agenda are fusing. Their powers of persuasion are helping to convey aspects of the message to the very people who have much to benefit from it: future carpenters, joiners and others who will make up the next generations of those working with wood. ☺

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Oliver will continue his observations on the future of timber architecture in Scotland in forthcoming issues of BFF.

## Refs

1. For an in-depth look at these two Maggies Centres buildings, and the role timber plays as a material see Fourth Door Review 7:  
[www.fourthdoor.co.uk](http://www.fourthdoor.co.uk)

RMJM Architects  
[www.rmjm.com](http://www.rmjm.com)

Carpenter Oak and Woodland  
[www.cowco.biz](http://www.cowco.biz)

Lauder College  
[www.lauder.ac.uk/ecospace](http://www.lauder.ac.uk/ecospace)

Arts And Design Scotland  
[www.ads.org.uk](http://www.ads.org.uk)

