

Timber Talent South West

Architecture for the 21st Century

Saturday 26 April – Sunday 13 July

Selection panel for *Timber Talent South West*:

- Juliet Bidgood, Architect and Partner, NEAT
- Gillian Fearnough, Director,
The Architecture Centre, Bristol
- Adrian Gale, Architect and CCANW Trustee
- Tanya Griffiths, Director,
Architecture Centre Devon and Cornwall

Researchers for *Wood Culture* programme:

- Juliet Bidgood and Carl Middleton, NEAT
- Elly Deacon, Adriana Robert and
Craig White of White Design
- Oliver Lowenstein, Fourth Door Research

Thanks to Northbank, Bath for the
design of the exhibition panels

This exhibition is part of the **Wood Culture** programme – an ambitious year-long festival celebrating the beauty, usefulness and sustainability of wood and exploring its many uses in contemporary architecture and design.

Timber Talent South West features CCANW's selection of sixteen of the most inspiring recent examples of the use of timber in contemporary architecture. Its focus is on both innovative timber buildings from the region and timber structures made elsewhere in the UK by South West based practices.

The exhibition will also be shown at The Architecture Centre, Bristol, 9 September-9 November.

Associated events:

Forum: Timber and the Environment

World Environment Day
Thursday 5 June, 6.30-9pm

Forum: Timber and Affordable Housing

Thursday 19 June, 6.30-9pm

Architectural Residency: Cameron Scott of Timber Design Ltd

Working with architecture students from the region.

Visit: Hooke Park, Dorset

At the end of June CCANW is planning a trip to Hooke Park.

For further details see CCANW's current programme.

CCANW is grateful to Architecture Centre Devon and Cornwall for help in the marketing of the exhibition.

Funders 2008



Programme partners



Introduction

Architecture for the 21st Century



The fourth exhibition in the Wood Culture series, **Timber Talent South West** showcases structures which reveal new and creative uses of timber as a building material and explores the relationship between the built and the natural environment. The inspiring qualities of the landscape of the south west, combined with the expertise and resources located in the region, have - over several decades - resulted in a concentration of innovative work in the field of timber architecture and engineering.

The exhibition begins with the innovations at **Hooke Park** in Dorset, an experimental project begun in the early eighties; a pioneering and astonishing achievement in contemporary British timber design. The story continues with sixteen projects, all completed since 2003 either located in the south west or designed by professionals based in the south west. The selection features a range of building types including community and civic spaces, house and housing projects, workplaces and structures in the landscape.

Four themes are explored:

Span shows that, in responding to climate change, elegant design solutions can be found using timber to replace less sustainable materials and achieve ever more impressive spans.

In **Mimesis** – the notion of art emulating nature is explored, where spatial enclosures are formed by armatures and envelopes we recognise from the natural world.

The **In Nature** group looks at those projects which establish a strong relationship with nature through form, method or materials and their setting in the landscape.

Community asks how timber is used to build sustainable communities and what a future with an increased use of timber might look like.

This is an opportunity to reflect on the advances in the design and technology of building with timber - particularly their influence on the aesthetic of a more sustainable architecture – and enjoy the rich and diverse wood culture the south west has to offer.

Tanya Griffiths
Director, Architecture Centre Devon and Cornwall
www.acdandc.org.uk

Span

Architecture for the 21st Century

We often take for granted the volumes of space now achievable in contemporary buildings. Column-free, flexible spaces are now being created by soaring spans in timber through lamination techniques or through component systems. The drive towards environmentally responsible architecture and better management of our natural resources has seen significant development in the use of timber, particularly in the structure of buildings, as an alternative to less sustainable materials.

From the simplest example the **Wheelchair Bridge** at Goldolphin, in spanning the leat using only green oak, granite and steel fixings, an expressive and clearly contemporary solution is achieved but is at the same time evocative of the engineering heritage of the nearby mines.

The **Formby Pool** building set in a previously undeveloped site is primarily timber framed, using a laminated veneer lumber (LVL) product. This material is used for all perimeter columns and the pool hall roof beams and decking. It is also used to form the 50m long timber truss which supports the west elevation and allows uninterrupted views of the park. In other areas of the building the roof is supported on engineered timber I-beams.

The choice of timber as the principal material in the **Padstow Lifeboat Station** has been driven to a large extent by the conditions of the very exposed site on the Atlantic coast. The curved form reduces the need for joints and connections between materials and thus provides a good weathering shell and has minimised the envelope of the building enclosing the lifeboat.

At the **Kindersley Conference and Education Centre** the interpretation of a traditional long barn in a rural setting and the ambition to create a very sustainable building has strongly influenced the design. The main structure of the building has been designed to reuse short lengths of timber with an innovative engineering concept but traditional jointing and can be read as a celebration of timber as a structural material. The arched trusses afford flexibility and allow the introduction of high level glazing at the ridge.

Photo © Mathew Robinson



Photo © Dennis Gilbert



Photo © Poynton Bradbury Wynter Cole Architects Ltd



Photo © Alec French Architects



Mimesis

Architecture for the 21st Century

The notion of architecture and engineering taking their cue from nature is not new. *Mimesis* in this context means emulation or imitation of nature. The projects in this group are those that are most explicit in this ambition and that perhaps make us reflect on our relationship with nature - how we respond to symmetry and organic form in the natural world and in our built environment.

The **Rolling Summerhouse** is at once a mysterious art object and a dynamic habitat. It is easy to recognise that it has taken its inspiration from nature but it also has a scale to accommodate the human form and the imagination. The timber material is shaped, bent and woven into a form that is intricate but also solid and protective.

The **Hadspen Obelisk**, by contrast and by its scale, is a powerful statement of manmade achievement in the landscape. The geometry is reminiscent of the structure of a narrowing leaf or reed and offers its true 3-dimensional form and complex symmetries as you walk around it. The structure at 50 feet (15.2m) is reinforced with stainless steel without which the timber could not sustain this 'pose'.

The botanical inspiration of the roof timber structure at **The Core** is striking, the spiralling ribs and rhythms within the roof structure are expressive of the mathematical principles which have influenced the design; the Fibonacci series and Golden Section, sometimes referred to as 'nature's blueprint'. The Core also takes its inspiration from the tree, incorporating a central trunk and canopy roof that shades the ground and harvests the sun: the roof structure incorporates rooflights and photovoltaics.

The single domed gridshell glazing at **Chiddingstone Castle Orangery** is fixed to the locally sourced chestnut timber using bespoke stainless steel fixings. This is the first example of frameless glazing used with a timber gridshell. The need for a lightweight and transparent structure has resulted in a glass carapace with an intricate hierarchy of structures, evocative of plant and insect forms.



Photo © Charlie Whitney

Photo © James Morris

Photo © Adam Parker

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In Nature

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This group of projects embodies a strong philosophy about a building's relationship with its environment in terms of method of building, use of resources and its setting in nature. They are all based on sustainable building principles, located in sensitive settings and use locally sourced materials. There is also particular attention evident in these schemes as to the way in which materials meet each other and how a building is crafted.

Dairy House is a highly innovative building which has a very direct relationship with its environment as it uses timber sourced from the estate within which it is situated. Winner of the Wood Award 2007, the project has interesting contrasts of refined glass and crude timber finishes - the transparent and opaque - and features the sensitive integration of the contemporary addition to a more traditional building.

The response of the **Leach Pottery** project to the topography and sensitive site conditions has influenced the way in which the new buildings follow the line of the river and the use of specially designed footings which allows the timber framed buildings to 'float' over the flood area. The spaces between new and existing buildings are articulated by timber walkways and have formed a 'dry garden.'

Milton Garden Studio, perched on the hillside, is a simple structure but sophisticated in the way it combines ordinary materials and in minimising its impact on the landscape; the craftsmanship is evident throughout.

Winner of the 2007 Prime Minister's Better Public Building Award, **Dalby Forest Visitor Centre** for the Forestry Commission is an example of a project where the impact on environment has been studied at every level. The use of the timber frame combined with prefabricated timber panel components has produced a very distinctive architecture made up of solid planes with the spaces between, allowing daylight to enter the building. Not only does the building use larch from the estate in its fabrication but the principal energy source is woodchip from the forest.

Photo © James Morris



Photo © GHK Ltd



Photo © Cameron Scott



Photo © Jake Lewis



Community

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Photo © James Morris



Photo © Jake Lewis



Photo © Architype



Photo © Mike Baldwin



The way we design and build our communities is set to change significantly in order to meet the challenges of climate change. The use of timber has an important role to play in making this step, not only in private and affordable housing, but in our places of work and public buildings.

Our perception of timber as a building material is also changing: a building's performance and resistance to weather are strongly associated with the solidity of 'bricks and mortar.' This is giving way to the idea that timber, in promoting healthy and natural environments, can be successfully 'worn' on the outside. The projects in this group all use timber frames but are also finding a visual expression for environmentally sustainable architecture and are making a marked difference to the communities they serve.

Of the many environmentally sustainable features of **Great Bow Yard** the response of the different housing terraces to orientation and position within the site is possibly the most striking. This includes the use of balconies and sun spaces to utilise the light and, on the south facing buildings the timber sun-shading devices (brise soleil).

The undulating roof and projecting eaves have given the terraces of houses in the **Oak Meadow** development a very distinctive expression and the degree to which the sustainable measures have been integrated is very successful.

As a community building project the **Stroud Co-housing** scheme is the first of its kind. The absence of cars and the use of timber, not only on the buildings, but as retaining structures within the landscape are a key part in the way the sense of community is expressed.

Oakwood House, by contrast, is a great example of implementing a strong philosophy in sustainable construction for a public services building. Home to the cleansing, recycling and reclamation facility of Exeter Council, the building was conceived as a demonstration project, simple in its design concept and with a modest budget, it uses timber in its frame, cladding, the solar shading and finishes.