

DESIGN



SPORTS CENTRE/SWITZERLAND

To the rafters

Gracing the interior of a number of contrasting sporting arenas, Neue Holzbau's intricately engineered timber designs have put the Swiss company in a league of their own.

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From the handsome exposed rafters of an ice rink in Davos, to the spa-like wooden trimmings of a new public pool in Nyon, structural timber specialist Neue Holzbau is refining sporting buildings in Switzerland and beyond. It also helped create what may be the world's most beautiful indoor tennis courts at the Hotel Bürgenstock in the Swiss Alps, working with Lucerne-based Rüssli Architects on the project. It's a court with view-laden floor-to-ceiling windows and capped off by a seemingly gravity-defying timber

(1) Hockey Club Davos's training hall

ceiling. "The space feels integrated with nature and the landscape," says Ana Simunovic of Rüssli Architects about its dazzling design.

MONOCLE visits the site on a chilly winter's morning as snow glistens on the pine trees beyond the court's huge windows. Inside, however, all the timber makes the place feel warm and welcoming. "We had the chance to use a material that would allow us [to build with] complexity and provide an atmosphere and climate in the space that reflects the idea of wellbeing,"

(1) Bürgenstock Resort tennis court

says Simunovic. That complexity includes 900 Neue Holzbau-made timber bars that make up the ceiling and are designed to hide all supporting metal joints. The result is an undulating wood canopy that appears light and provides a scent as fresh as the forest beyond the glass. The delicate look is deceiving, however; it can carry the huge weight of the snow that piles up on the roof in winter.

It was completed in 2017 and Neue Holzbau could monitor the work closely, as its headquarters is a short drive away. Yet this engineering company of 67 staff is growing into a properly global force, with its prefabricated structures finding homes as far away as South Korea and Australia.

Down the mountainside from Bürgenstock, Neue Holzbau CEO Bruno Abplanalp greets us above the din of manufacturing at a newly opened workshop inside the company's expanding base. Today huge pine timber beams are being carefully shaped for a new manufacturing space for Swiss company Pilatus Aircraft. While sport venues (voluminous spaces that typically need to be built quickly and cheaply) have become the company's bread and butter, it is also building large-scale work environments. "Building with wood has a long tradition in our region," says Abplanalp.

The system behind Neue Holzbau's recent success is complex but delivers simple solutions for a client base of architects and property developers. "Thanks to the system we are able to increase the load per surface, which then clears the path for almost unlimited design options," says Abplanalp of a way of manufacturing that is as much about clever computation as it is about using quality materials.

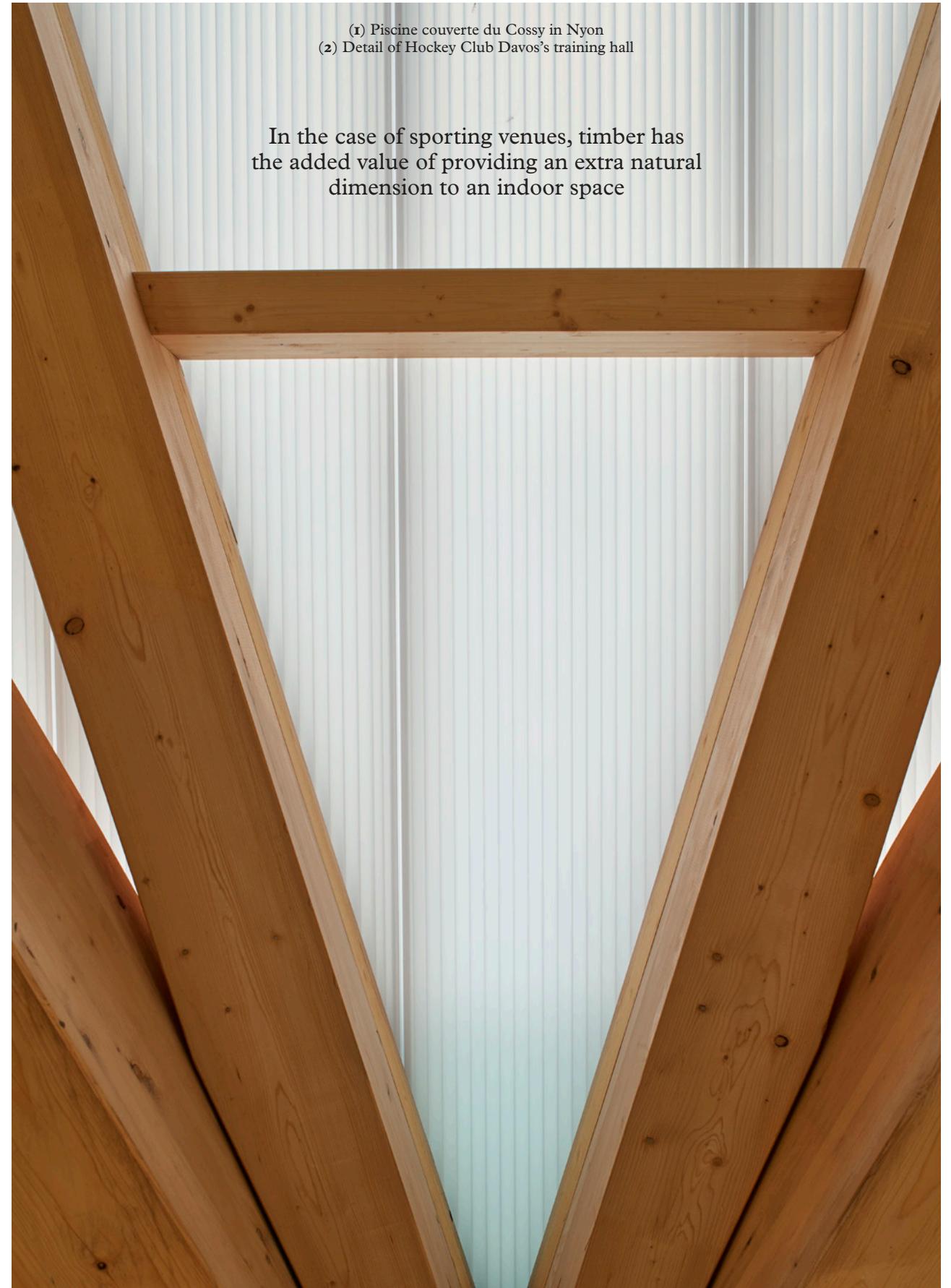
"We export across the world but every piece [of a structure] is made here in Lungern of mostly Swiss wood," says Abplanalp. And therein lies the key to Neue Holzbau's global success:





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(1) Piscine couverte du Cossy in Nyon
(2) Detail of Hockey Club Davos's training hall



In the case of sporting venues, timber has
the added value of providing an extra natural
dimension to an indoor space

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(1) Bending beams for Pilatus Aircraft at Neue Holzbau's workshop (2) Giant planer to bring planks into shape before assembly

pre-fabrication. Once the elements arrive at their destination they can be assembled to millimetre-accuracy in a manner akin to flat-packed Ikea furniture. Neue Holzbau provides pre-built pieces and construction instructions to clients whose version of Allen keys and hammers are industrial cranes and hydraulic drills.

Spurring Neue Holzbau's success is the reality that wood is having a renaissance in the construction industry. Coming from a renewable source it is seen as sustainable and, thanks to new technology, it can be used in ways that mirror traditional structural elements, such as steel. It's affordable too and can speed up construction times when deployed in buildings.

In Davos, for example, Neue Holzbau helped make a huge and dynamically designed timber roof and building extension for an existing ice hockey rink that was completed in less than six months. In the case of sporting venues, timber has the added value of providing an extra natural dimension to an indoor space; a deep inhalation of air from a pair of exhausted lungs is all the more exhilarating when it's laced with the hint of pine. Also, timber has long been revered for providing a level of calm to a building (think woody Finnish saunas and Hinoki-lined Japanese onsens).

All of these factors have combined on a recently completed indoor public pool in the Swiss-French town of Nyon. "The pool will be much used by the adjacent schools so there's going to be quite a few kids running around," says the project's architect Romain Lovey of Lausanne-based firm Itten+Brechbühl, explaining how he deployed timber to soften the sounds. "But by creating a spa-like atmosphere we counterbalance the noise and make it a welcoming and almost silent place for the swimmers."

We join the architect on a particularly quiet day and the warmth of the wood and

Wood works:

1. **Storeys Field Centre Cambridge 2018**
The work of UK-based firm Muma, this recreational centre devoted to sports and music cleverly integrates itself into the countryside.
2. **Tribune Kulm Hotel St Moritz 2017**
Designed by Norman Foster, the timber pavilion overlooking the ice-rink at the Kulm Hotel in St Moritz is a masterwork in structural timber design.
3. **Aquabasilea Basel (Pratteln) 2009**
This recreational swimming pool in a shopping mall near Basel dazzles with its dome-like timber canopy.
4. **Climbing hall Bern (Ostermundigen) 2015**
Housing one of Europe's highest climbing walls, this wooden construction is engineered to allow for quick adjustments to the space and provides optimised acoustics thanks to wooden panelling.
5. **Swimming pool Frutigen 2007**
Wooden elements on the ceiling offset the tiles by the pools, while a wide glass façade opens up the view to a mountain panorama.



the place's sleek, unfussy design, make it feel far more luxurious than a standard public pool. Neue Holzbau's engineering has allowed for the entire timber-and-glass interior to be held up by 11 massive wooden pillars, offering visitors (and lifeguards) clear views of the action.

The ceiling hangs close to the water, forming a sense of intimacy, while the wide windows bring the outside in. "Thanks to the surrounding park and the floor-to-ceiling windows, swimmers feel submerged like they're swimming in the park," says Lovey. In many ways the pool's success as a piece of design reflects the best parts of Neue Holzbau's practice. The Swiss timber specialist has added extra depth to an age-old material by updating it for modern times and in doing so is quietly reaping the rewards. — (M)