

Timber Roof Supports

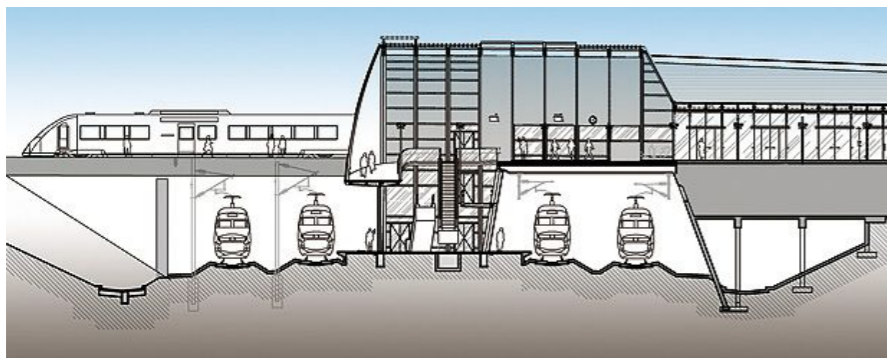
Site: Belfort-Montebeliard TGV Station

Location: near Meroux, Territoire de Belfort département, Franche-Comté région, north-east France

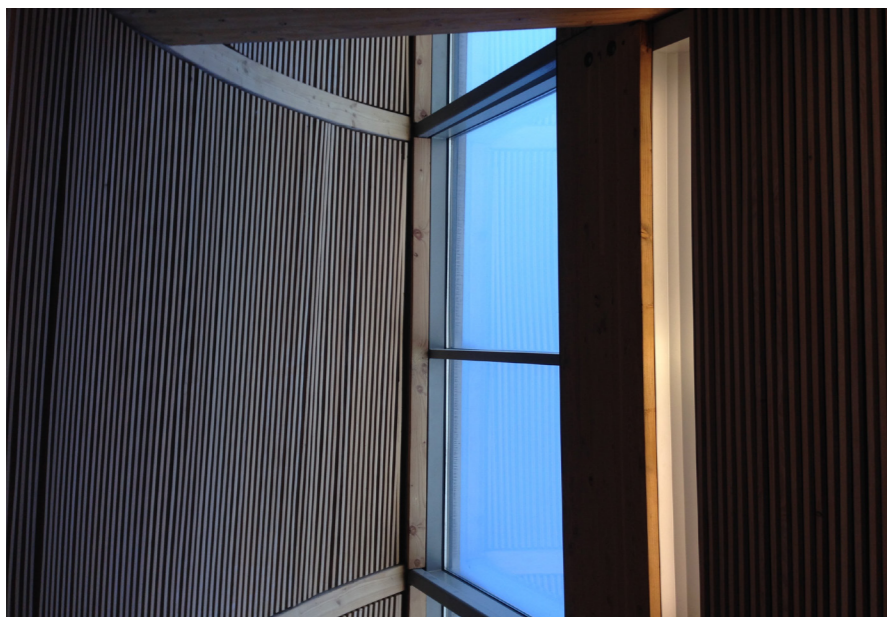
Arch.: JM Duthilleul, F. Bonnefille, J-F Blassel, Agence Territoires (Paysagiste) SNCF-AREP



Construction site (2010)



Section of station



detail of structure (interior view)

Wood timber roof supports are an environmentally and cost effective way of constructing structures.

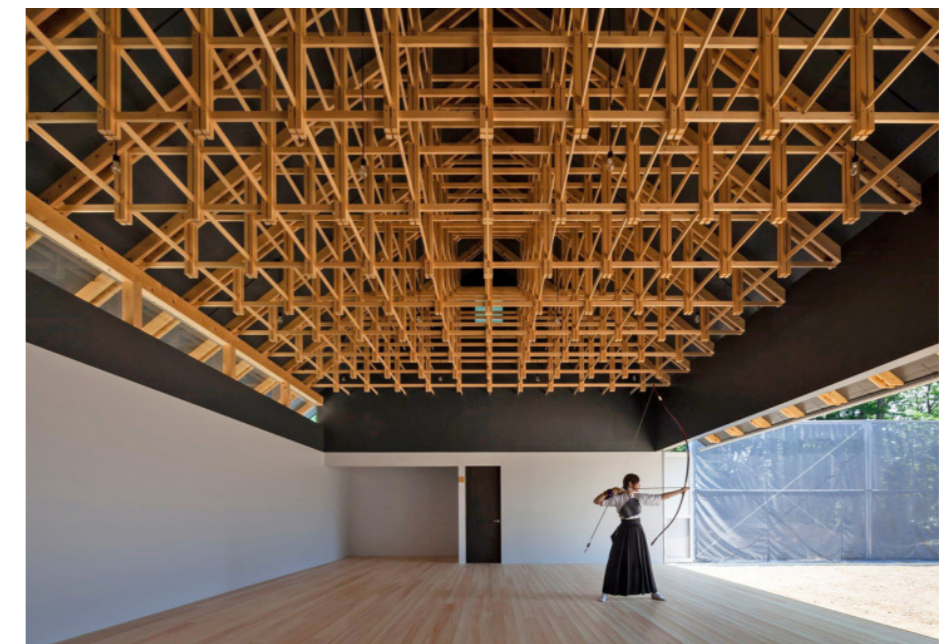
Wood as a material is 100 percent natural, this very reason already reduces the CO2 emissions correlated with the use of this material (there is no production cost).

Wood is flexible and durable, its limitations are its fragility to fire and humidity, thus exemplifying this wood use as ideal. But having a 'flexible' structure, it allows for strong tectonic durability (concrete cracks with earthquakes!), thus explaining its long historical use in Japan.

If unprotected, wood is a weak material in durability.

The wide-spread adoption of concrete and steel coupled with the enormous manufacturing infrastructure for these materials and building codes that now favored non-combustible construction led to their dominance, and a general lack of investigation of other materials.

The reasons for wood's resurgence today are scientific rather than nostalgic, especially its environmental performance traits and ease of prefabrication. Much international research has found that using wood in place of other construction materials can lead to a significant reduction in Greenhouse Gases (GHG), while at the same time allowing for a net increase in the global forest cover if sustainable forestry practices are employed. After a century of decline, wood is finding its way back to the forefront of urban architecture.



Archery Hall and Boxing Club by FT Architects