

The Hōryū-ji, a wooden temple from the year 607: thirteen centuries that debunk the myth of weak timber

The Hōryū-ji temple, raised in the seventh century and still standing, offers a relevant lesson for contemporary construction: timber is a durable structural material and, counterintuitively, remarkably fire-resistant.

The Hōryū-ji temple is one of the oldest timber buildings in existence anywhere in the world. Its initial construction dates from the year 607, but the complex was rebuilt in 670 and later restored on two occasions, in 1374 and 1603. Despite these interventions, an estimated 20% of the materials from the 670 rebuild are still preserved, meaning elements and structures more than 1,300 years old.

A site recognised by Unesco

The temple stands in the south of Japan, in Nara Prefecture. It is a Buddhist temple with a monastery where monks reside, and it is regarded as one of the most admired in the country for its age and architectural singularity, since it breaks with the Chinese and Korean tradition by introducing a new arrangement for the Kondō and the pagoda. In 1993 Unesco designated it a World Heritage Site.

The grounds are divided into two areas and house several buildings. The oldest is the one containing the Kondō and the five-storey pagoda, considered the oldest timber buildings in the world.

Fire, the historical enemy

The principal enemy of this temple has always been fire. The timber is left exposed and has no fireproof treatment of any kind. Even so, the complex has withstood small fires that in most cases did not affect the structure. The widespread notion that timber is a weak material for the construction of buildings is refuted by an example that has stood for thirteen centuries.

Why timber holds up

Timber is a material with high structural strength, able to retain that strength even under fire conditions. Surface burning does not compromise the core of the member: a charred layer forms that protects the timber within and slows the advance of combustion. For this reason, in a fire steel often loses its load-bearing capacity before structural timber does.

From a millennial tradition to efficient construction

In recent years technology has enabled notable advances in efficient, resilient timber construction. At PAPIK Group we build ecological homes of great strength and quality, applying the most current materials and treatments so that they not only meet the regulations in force but exceed them. Our constant attention to technological progress allows us to refine our construction system and always guarantee the best result.

This trajectory connects the logic of great timber buildings with today's energy-efficiency criteria. Anyone wishing to explore our approach can see how we handle [timber construction](#) and [energy retrofit](#), or read about the [wood revolution](#) in contemporary architecture.

A building that spans thirteen centuries is not a romantic exception but proof that timber, well conceived, is one of the most reliable structural materials available to us.