The dome of the foyer of the Omeya Palace in Amman (Jordan)

With the aim of rehabilitating the grand foyer of the Omeya Palace in Amman, an 8th century courtly structure located in the center of the capital city of Jordan, the central space has been covered with a dome based on a glue-laminated wood structure. This structure was opted for due to the advantages of incorporating curved pieces and its unmistakable presence as a contemporary work.

Laminated wood footbridges

The article refers to four laminated wooden footbridges in Germany: the Eching footbridge, a suspended footbridge over the Danube River, the Stuttgart footbridge and the Remseck footbridge. A description is given of the construction and durability.

Unique works in glued laminated wood. The Teruel Fair and Exposition

A confidential study of a structure. The present article focuses on the valuable experience gained in designing the Teruel Fair and Exposition with a glue-laminated wood roof.

New techniques for repairing wood structures. Bending. Wood insert – glued joints II. On site methodology

A description is given of the repair of wood structural elements with laminated wood inserts, the type of joints, their design and working conditions.

Structural calculation for laminated wood. The case of lateral buckling in slender elements

Structures with glue-laminated wood beams with large spans imply the use of very slender elements that are sensitive to transversal instability or lateral warping, which in turn considerably reduces beam resistance. The efficient design and calculation of the braces and beam dimensions will result in an economical structural material due to the significant savings attained by reducing the amount of wood.
The following article reviews the state of the art in calculating the phenomenon of flexo-torsional instability and focuses on the "pathologies" associated with the design, as well as the effects of European standards and future NBE-EM98 code on this phenomenon. An analysis is made of the methods employed in verifying tilt and valid limits are set forth, as well as indicating current trends in research, which are of a essentially experimental character and involve the optimization of the calculation method in an attempt to obtain safe and cost-efficient designs.

Rehabilitation in wood structures

Historic wooden structures have developed over time into models that are currently functional. Nevertheless, the restrictions of modern codes and standards (although in Spain, these are as yet unofficial), are often not met by structures involved in the rehabilitation and restoration of buildings. In such cases, there are generally two alternatives: to determine the true resistance of the wood that is employed, which is often well above that which is assigned in the codes, or to reinforce the elements that do not comply with the standards. There is a third option, which consists of obviating the analysis of the resistance of damaged elements, if justified or backed by the passing of centuries of the combination of elements under study and studying the state of equivalent structural elements that have stood the test of time. In such cases, it would suffice to recuperate the section of the damaged elements with new wood and regain their capacity for survival.
This method involves prosthetic techniques with glued wooden elements that are similar to those used in the manufacturing of glue-laminated wood. Thi is, in effect, an interesting alternative within the field of restoration and rehabilitation.

Diagnosis. State of the wooden structure of the Cathedral of Santa María. Vitoria

In diagnosing the roof structure of the Cathedral of Sta. María in Vitoria, it is possible to establish the state of this structure and analyze its primary and secondary elements for four perspectives: structural diagnosis, building analysis, moisture analysis and the analysis of destructive elements.

The fabrication of laminated wood

A description is given of the manufacturing process for laminated wood elements and a general fabrication process outline is given, covering the entire process; from the initial preparation of raw materials to final finishes. This is a technology that has been consolidated in the last 40 years.

Quality Plan for Housing and Buildings within the framework of promotion and design project

The aim of the quality plan for housing and buildings is to promote a series of initiatives in the building process: project, reception of building materials, execution of works, use and maintenance. In this sense, a quality policy can be established and it can be developed in a coordinated manner among the different public administrations.

Dimensional variations in ceramic building materials

This article studies irreversible dimensional variations in some ceramic building materials. The effects of these variations are analyzed and compared with reversible expansion and contraction, for brickwork facades.

New regulations for telecommunication installations inside buildings

With the Royal Decree 279/1999, 22 February, it is necessary to consider spaces for the telecommunication installations inside buildings. The Decree outlines the building and maintenance requirements for the different telecommunication modes, to be fulfilled by the owner of the building, users and operators.