

Timber Tectonics

Tectonics is defined as the art of using material and construction methods in such a way that they actively shape a design. Until today, timber construction has undergone significant changes, primarily affected by the tools used to transform the material. While the age of carpentry was characterized by hand tools used to fabricate elaborate joints and custom elements, industrialization led to a shift towards machine tools and standardized components to decrease construction time and increase production. However, with the rise of concrete and steel industries timber almost became obsolete and its use in primary structures declined to a mere 20% in the first decade of the 21st century. In light of climate change and population growth, timber construction has experienced a resurgence in recent years. Advanced wood products expand the application area of wood, and computational design tools and digital fabrication mark a turning point in timber architecture.

This course will explore the tectonics of timber architecture at the scales of joint, system, and form through lectures, readings, and hands-on design exercises. We will analyze traditional and contemporary precedents and explore the inherent potential for new form through strategic adjustment and systematic recombination of design parameters.



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