

History of Carpentry and Joinery

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An outline-style set of notes for quick reference and deeper study

1. Early Beginnings (Pre-history ? 3000?BC)

Period / Region	Key Developments	Materials & Tools	Social Context
Paleolithic (c. 2.5?M?yr ago)	Simple wooden spears, shelters, and rudimentary platforms	Flint?shaped adzes, stone hammers	Survival; nomadic groups
Neolithic (??10?000?–?3000?BC)	First permanent dwellings, agricultural storage barns, early furniture	Polished stone axes, early wooden mallets, fire?hardened tools	Sedentary farming societies; communal construction
Ancient Egypt (??3000?–?500?BC)	Monumental timber frames for temples, shipbuilding, coffins	Copper chisels, bronze saws, bow?driven drills	Skilled guilds attached to the state; carpenters held “sesh” titles

Takeaway: Carpentry emerged from the need to shape wood for shelter, tools, and transport. Early techniques were dictated by the hardness of stone tools and the availability of soft woods.

2. Classical Antiquity (3000?BC ? 500?AD)

Civilization	Signature Techniques	Joinery Innovations	Notable Structures
Mesopotamia	Timber framing for mud?brick houses	Simple mortise?and?tenon, dowel joints	Ziggurats (wood?reinforced cores)
Greece	Fine?worked timber for temples, ships (triremes)	Dovetail and peg joints; use of bronze nails	Parthenon roof timbers (reconstructed)
Rome	Standardized timber sizing, prefabricated components	Advanced mortise?and?tenon, “scarf” joints, use of iron clamps	Aqueduct bridges, Roman villas, wooden roof trusses

Key Point: The spread of iron tools (iron chisels, saws) allowed tighter tolerances and more complex joints, paving the way for large?scale public works.

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3. Medieval Period (500?–?1500?AD)

3.1 European Traditions

- **Guild System** – Carpenters organized into local guilds (e.g., *Fratres Carpentarii* in Italy). Apprenticeship models standardized training.
- **Timber?frame construction** – “Half?timber” houses, churches, and castles.
 - **Primary joints:** Full mortise?and?tenon, through?tenon, scarf, and early dovetail.
 - **Fasteners:** Wooden pegs (treenails), wrought?iron straps, wooden wedges.
- **Specializations** – *Shipwrights*, *roofers*, *joiners* (interior woodwork) began to diverge.

3.2 Islamic World

- **Geometric wood carving** – intricate latticework (*mashrabiya*) and *muqarnas*.
- **Joinery** – use of hidden metal pins and sophisticated interlocking joints for domes and minarets.

3.3 East Asia

- **Chinese timber framing** – “Dougong” bracket system; complex interlocking without nails.
- **Japanese carpentry** – *Kanawa* (scarf joint), *shikuchi* (mortise?and?tenon), and the famed *Kigumi* system allowing earthquake?resilient