**Wood Crafting and joints :  
  
Joinery** is a part of [woodworking](http://en.wikipedia.org/wiki/Woodworking) that involves joining together pieces of [wood](http://en.wikipedia.org/wiki/Wood), to produce more complex items. Some wood joints employ fasteners, bindings, or adhesives, while others use only wood elements. The characteristics of wooden joints - strength, flexibility, toughness, appearance, etc. - derive from the properties of the joining materials and from how they are used in the joints. Therefore, different joinery techniques are used to meet differing requirements. For example, the joinery used to build a [house](http://en.wikipedia.org/wiki/House) is different from that used to make [puzzle](http://en.wikipedia.org/wiki/Puzzle) toys, although some concepts overlap.

**List of joints**

**Traditional woodworking joints**

* [Butt joint](http://en.wikipedia.org/wiki/Butt_joint): The end of a piece of wood is butted against another piece of wood. This is the simplest and weakest joint.
* [Miter joint](http://en.wikipedia.org/wiki/Miter_joint): Similar to a butt joint, but both pieces have been bevelled (usually at a 45 degree angle).
* [Lap joints](http://en.wikipedia.org/wiki/Lap_joint): One piece of wood overlaps another.
* [Box joint](http://en.wikipedia.org/wiki/Box_joint) (also called a *finger joint*): Several lap joints at the ends of two boards; it is used for the corners of boxes.
* [Dovetail joint](http://en.wikipedia.org/wiki/Dovetail_joint): A form of box joint where the fingers are locked together by diagonal cuts.
* [Dado joint](http://en.wikipedia.org/wiki/Dado_(joinery)): A slot is cut across the grain in one piece for another piece to set into; shelves on a bookshelf having slots cut into the sides of the shelf, for example.
* [Groove joint](http://en.wikipedia.org/wiki/Groove_(joinery)): The slot is cut with the grain.
* [Tongue and groove](http://en.wikipedia.org/wiki/Tongue_and_groove): Each piece has a groove cut all along one edge, and a thin, deep ridge (the tongue) on the opposite edge. If the tongue is unattached, it is considered a [spline joint](http://en.wikipedia.org/wiki/Spline_joint).
* [Mortise and tenon](http://en.wikipedia.org/wiki/Mortise_and_tenon): A stub (the tenon) will fit tightly into a hole cut for it (the mortise). This is a hallmark of [Mission Style furniture](http://en.wikipedia.org/wiki/Mission_Style_Furniture), and also the traditional method of jointing [frame and panel](http://en.wikipedia.org/wiki/Frame_and_panel) members in doors, windows, and cabinets.
* [Birdsmouth joint](http://en.wikipedia.org/wiki/Birdsmouth_joint): Is used in [roof construction](http://en.wikipedia.org/wiki/Roof_construction). A V-shaped cut in the [rafter](http://en.wikipedia.org/wiki/Rafter) connects the rafter to the wall-plate.[[1]](http://en.wikipedia.org/wiki/Woodworking_joints#cite_note-0)
* [Comb Joint](http://en.wikipedia.org/wiki/Finger_joint): A joint used as a way of conserving timber, as a means of joining random lengths of timber to be machined to a finished piece.

**Nontraditional woodworking joints**

* [Pocket hole joinery](http://en.wikipedia.org/wiki/Pocket_hole_joinery): A hidden screw is driven into the joint at an angle.
* Joints using metal connectors that attach to the frame with nails or screws.
* Floating mortice joint

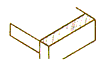
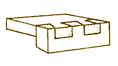
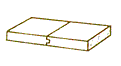
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**Traditional ways of improving joints**

* [Dowel](http://en.wikipedia.org/wiki/Dowel_joint#Dowel_reinforced_butt_joint): A small rod is used internal to a joint both to help align and to strengthen the joint. Traditional joints are used with natural timbers as they do not need any other materials other than the timber itself. for example: Butt joints. Dowel joints are also useful for pegging together weaker, cheaper composite materials such as laminate-faced chipboard, and where limited woodworking tools are available (since only simple drilled holes are needed to take the dowels).

**Nontraditional ways of improving joints**

* [Biscuit joints](http://en.wikipedia.org/wiki/Biscuit_joiner): A small 'biscuit' is used to help align an edge or butt joint when gluing.
* [Domino joiner](http://en.wikipedia.org/wiki/Domino_joiner): A trademarked tool similar to a biscuit joiner, where a piece larger than a biscuit has some of the advantages of dowels, and some of the advantages of biscuits.

butt joint  
a_102_1_3Dado Joint  
a_102_2_1dowel joint  
a_102_2_2lap joint  
a_102_2_3miter joint  
a_102_3_1mortise and tenon joint  
 through dovetail joint  
tongue and groove joint