Stock Selection and Retrieval
Recycled wood that you plan to use for a project should be free of paint, bug tracks and major defects. That is not to say, however, that all reclaimed woods with blemishes should be discarded. Wood with objectionable holes, for example, can be fixed using epoxy glue or a plug. Knots and curvy edges can add character and visual interest to your project. Renowned woodworker George Nakashima never saw these features as defects but rather as natural beauty, which he incorporated into his furniture design.

To harvest wood from pallets, you need only basic tools such as a wrecking bar and a claw hammer. If you have a lot of pallets to break apart, buy or make a tool called a pallet buster. When only short pieces between the framing members are salvageable, I sometimes use a circular saw. After prying out the boards, remove all visible nails and other metal bits with a pair of pliers and a nail puller, and clean up any traces of dirt and concrete using a wire brush. Finally, use a metal detector to locate any hidden metal pieces in the salvaged boards.

Since some pallets can be contaminated, I avoid using imported ones, which are often fumigated with toxic pesticides. I also avoid using pallets from chemical plants or unknown sources.

Preparing the Lumber
Most pallet boards have uneven edges. You can use a bandsaw to cut them straight, but I prefer to rip them on a table saw using a straight edge cutting jig. It’s easy to make one using a plywood carrier board with clamps to secure the stock on the jig.
I rip the pieces down so that they are roughly equal in width and then crosscut the ends. If the boards need to be thickness planed, I use an old set of jointer blades. On boards that are relatively even in thickness, I use a hand plane to remove any high spots.

Depending on the species and the thickness of the wood, acclimatization may be necessary. Store the boards in the house or shop for two to three weeks and use a moisture meter to check their moisture content. A range of 6% - 12% is preferred.

**Building the Frame**

Measuring precisely can be difficult when working with non-uniform reclaimed wood, so I use the following marking trick. Lay out the frame members on top of the jigsaw puzzle and mark the cutline on each board with a colored pencil. My frame has a traditional miter joint, and it’s easy to cut the miter on the wrong orientation. To avoid this, lay out the diagonal line on each corner before you register the inside straight edges against the fence of a miter saw to cut the miters.

After all of the pieces are cut, dry assemble the frame and check for any uneven inside edges. To even them up, first draw a line on the wider piece to meet the narrow piece at the miter ends. (Such a line does not need to be straight and can even follow the grain for a natural look.)
Trim the inside edge to the line using a bandsaw or straight edge cutting jig, as mentioned previously. I used scrap boards as shims to extend the reach of the toggle clamps. Complete the frame by cutting a 3/8" rabbet in the back on a table saw with a dado blade or on a router table with a rabbeting bit.

**Assembly**
I dry clamped the frame to check the fit of the joints and rabbet. A shoulder plane is the best tool to use for trimming the rabbet. To prevent glue starvation, I sealed the miter ends with a thin layer of glue. After they dried, I applied a thicker coat of glue and clamped the frame.

On large frames, it’s a good idea to reinforce the joints using biscuits or dowel plugs, or drive brads into the top and bottom. To complete the project, install the hanger, drop in the glass (if any), the picture and the backing. Secure the backing with brads or glazier’s points.

After the frame is complete, add one more task to your woodworking to-do list: hunt for more reclaimed wood.

**Charles Mak**

Charles Mak is a businessperson and enthusiastic hobby woodworker, teacher, writer and tipster. He works part-time at his local Lee Valley Tools store.