1. Painted surfaces complement wood

Cabinets that mix wood and light-colored painted surfaces make the room brighter and add a fashionable look. Painted surfaces have several advantages: Down the road when they become worn and the color fades, you can add a new coat of paint to restore or change the color. Also, the materials that are ideal for painting are also very economical. Plus, MDF offers extra stability.

My Dream Kitchen

Norm's 20 essential tips for making cabinets to suit a modern lifestyle

BY NORM ABRAM

For a couple of reasons, the upcoming 2008 season of *The New Yankee Workshop* is a special one for everyone involved. First, it's our 20th anniversary, and we're especially proud of that milestone. Second, a good part of our entire season—nine episodes—will be devoted to showing our viewers how to build a custom dream kitchen. It's a project I've wanted to do for a long time. And now that the kitchen is complete, I feel it was well worth the wait.

For more than 35 years now, I've had a hand in designing, building, and installing a good many kitchen cabinets. And during that time, I've managed to learn a lot about what works well and what doesn't.

This article is a collection of my favorite tips and techniques, organized into those three essential stages: design, construction, and installation. I hope you find them useful, and that they help you turn the kitchen you dream about into your dream kitchen.

My basic approach

I think most home woodworkers will find my method of building kitchen cabinets relatively straightforward. The plywood case is held together with glued and screwed dado and rabbet joints. Solid-wood face frames are assembled with pocket screws and joined to the case with glue and biscuits. To simplify the process, beads and moldings are applied after the fact. Drawer boxes are dovetailed using a router jig. The result is a handsome, versatile, rock-solid cabinet that is easy to build with common woodworking tools.

Why build your own kitchen?

Custom cabinets mean you're not limited to standard cabinet sizes. Granted, you'll generally want to stay with standard dimensions, but when a non-standard cabinet makes sense for the way you use a kitchen, go ahead and break the rule. One caution: Make sure your changes meet all local code requirements.

You also can customize the style when you make your own cabinets. Commercially available cabinets come in a wide range of styles from colonial to contemporary, but that doesn't mean you'll find one that's perfect for you. Style options are unlimited when you are the designer.

Consider, too, that you can use almost any wood that suits your fancy. For the island, we used southern pine reclaimed after it sat on the bottom of a river for about 100 years. The wood has a patina that's just remarkable. But you won't find it on a commercial cabinet.

Building your own kitchen cabinets has one more big plus. For about what you'd pay for a stock kitchen, you'll end up with a top-of-the-line kitchen, customized to meet the way you work and live.

Reality check—Be aware that you'll be moving around a lot of 4-ft. by 8-ft. sheets of plywood and some medium-density fiberboard (MDF), too. Both are heavy and awkward.

Also, kitchen cabinets are big, so make sure you have enough room in your shop to assemble them. Once the cabinets are assembled, you'll need a big area such as a garage to store them until installation time.

Master carpenter Norm Abram hosts The New Yankee Workshop. *The 20th season debuts January 5 on PBS stations. Check your local listings.*

Online Extra

To see these tips in action, go to **FineWoodworking.com/extras** starting Jan. 2 to watch selected clips from the PBS show.

Photo: Michael Pekovich

Design tips

If your budget allows, an architect or kitchen designer can help you put together a kitchen that looks great and lets you work comfortably and efficiently. Or, you can get inspiration from magazines, catalogs, the Internet, and even TV shows. In this case, the homeowners put together a scrapbook of kitchen ideas. Here are some we included.

2. More drawers, fewer doors

In lower cabinets, drawers make for easier access than doors, so you'll spend less time stooping. Even the microwave in this kitchen (bottom) works like a drawer—keeping out of the way, while allowing access to food from above.

3. Give the cabinets a furniture look

Most kitchen cabinets gain an extra measure of eye appeal when made to look like furniture. Inset doors (above) and drawers, common to fine furniture, elevate the style. Non-mortise-type butt hinges (center) are easy to install yet add to the furniture look. If the cabinets have an exposed end panel, it helps to add some sort of detail to it, like an applied frame and panel. Adding a pair of turned legs to our island (below) gave the piece a kitchen-table flavor, and gave us some places to sit.

Photos, this spread: Michael Pekovich; facing page (bottom right): ©2007 WGBH Anthony Tieuli

4. Customize cabinets to suit your lifestyle

When you are the builder, you're not limited to using standard cabinet dimensions. Consider a deeper-than-standard sink cabinet to reduce crowding around the faucet. Allow adequate room between lower and upper cabinets for newer, taller countertop appliances (upper right). Last, extending upper cabinets to the ceiling (lower right) makes better use of space, eliminating an area that mostly collects dust and kitchen grease. Plus, it just looks neater.

5. Make a family-friendly kitchen

A pantry, once common in homes, is an idea whose time has come back. If space doesn't permit a full-size walk-in pantry, consider a pantry closet, as we did (left). It added lots of extra storage in a relatively small footprint. And, by adding short shelves on the inside of the door, we made the space even more efficient.

If you have the space, consider including a home office with a computer in the kitchen (right). It helps the cook make a meal and get some work done at the same time. And kids can get computer time while visiting with mom or dad. Even better, consider a computer with a television tuner so you can watch some TV in the kitchen.

Construction tips

Keep two main goals in mind when building kitchen cabinets. First, you'll want them strong, so they can stand up to years of everyday use. And, second, you'll want to make them efficiently. That means a minimum of wasted time and materials. Bear in mind, some of these tips assume painted cabinets.

6. Choose the right materials

Use solid poplar for the face-frame and door-frame parts. It's durable, readily available, and takes paint very well.

Make drawer fronts and door panels from MDF. It's inexpensive and it also likes paint.

For the interior case parts, use prefinished maple plywood. It's stable, strong, and eliminates the need to finish the inside of the cabinet. Plus, the finish is extremely durable.

7. Make the cases rock solid

Rabbet and dado joints, glued and screwed, are easy to do and make for a sturdy case.

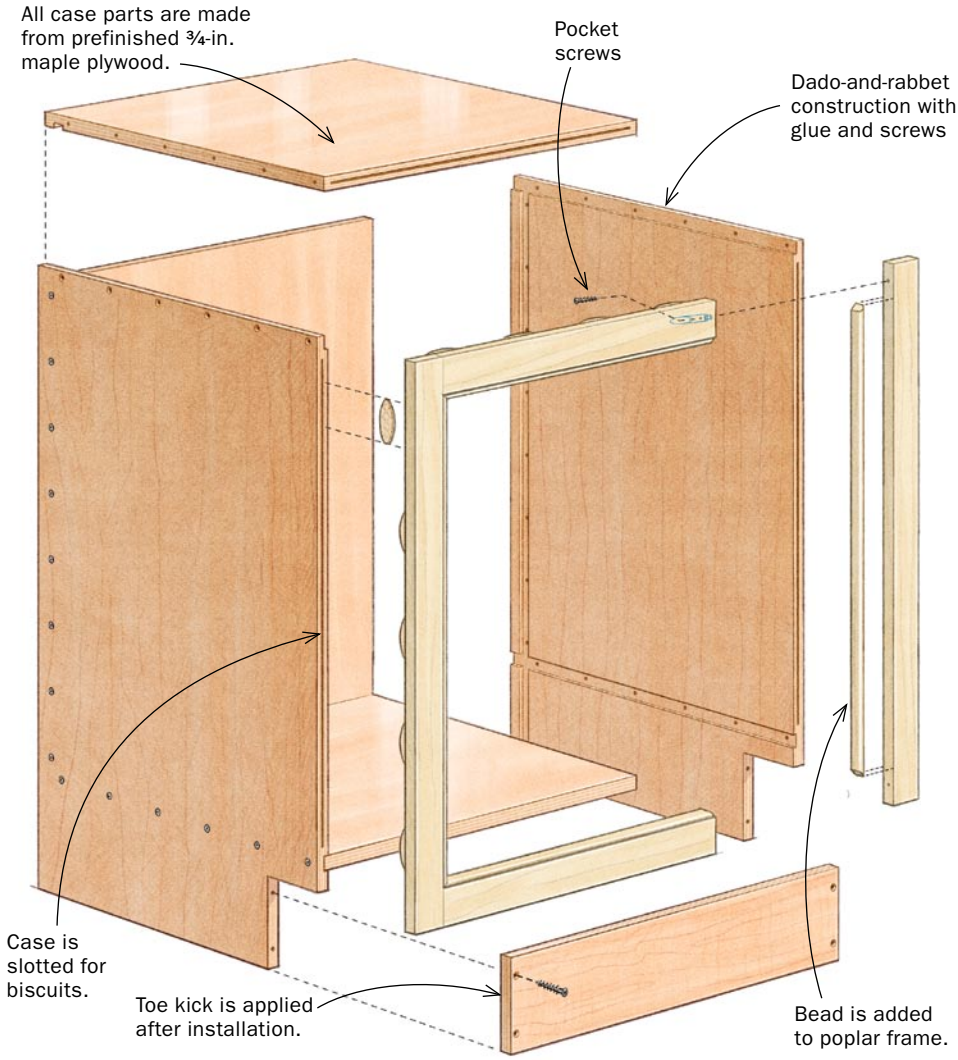
To easily locate screw holes in cabinet cases, drill the shank holes from the inside faces, through the rabbet and dado grooves; then countersink the shank holes on the opposite side. After applying glue and fitting the pieces together (but before driving wood screws), drill pilot holes to prevent the plywood from splitting.

8. Layout sticks save time and reduce errors

Use vertical and horizontal layout sticks to establish the widths, heights, and locations of the new cabinets, appliances, windows, electrical outlets, and light switches. When completed, the sticks become full-size blueprints that go with you into the shop.

9. Make cases from ¾-in.-thick plywood

Factory cabinet cases often have thin backs and partial tops. For extra strength, make the cases from ¾-in. plywood. Install the back in a groove set ⅜ in. to ½ in. from the back edge of the sides. The set-in allows room to scribe and trim the cabinet if the wall is uneven or out of plumb. The thick plywood also lets you screw through the case back into the wall.



Photos, this spread: 2007 WGBH/Morash Associates Inc.; facing page (bottom left): Michael Pekovich; drawings: John Hartman

10. Join face frames with pocket screws

Used with a jig, pocket screws make joints in no time. They offer plenty of strength, considering that the frames end up glued to the cases. Use the jig to drill the holes and then clamp the pieces flush before screwing the joint together. No glue is used.

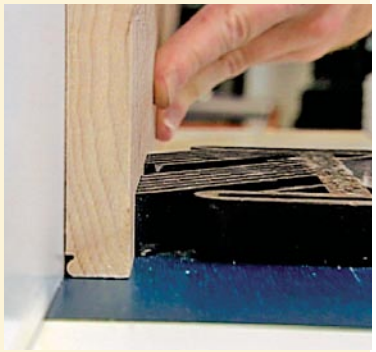
11. Attach face frames with biscuits

Biscuit joints are a quick, easy, and strong way to glue the frames to the cases. Plus, you don't want any nail holes to fill on this very prominent surface. To save time, instead of cutting individual slots in the case fronts to accept the biscuits, use a slot cutter to cut a continuous slot along each edge (left). After that, cut normal biscuit slots in the face frame (left center).

Then, simply use clamps to hold the parts together until the glue dries (bottom).

12. Dress up the face frames

A shopmade decorative "pencil" bead, applied to the face frames, adds an interesting detail with minimal effort. Use a beading bit to rout the bead on the edge of a board. Rip away the beads on the tablesaw. To attach them to a frame, miter the corners at 45°, then use glue and a pin nailer to drive ¾-in.-long pins.



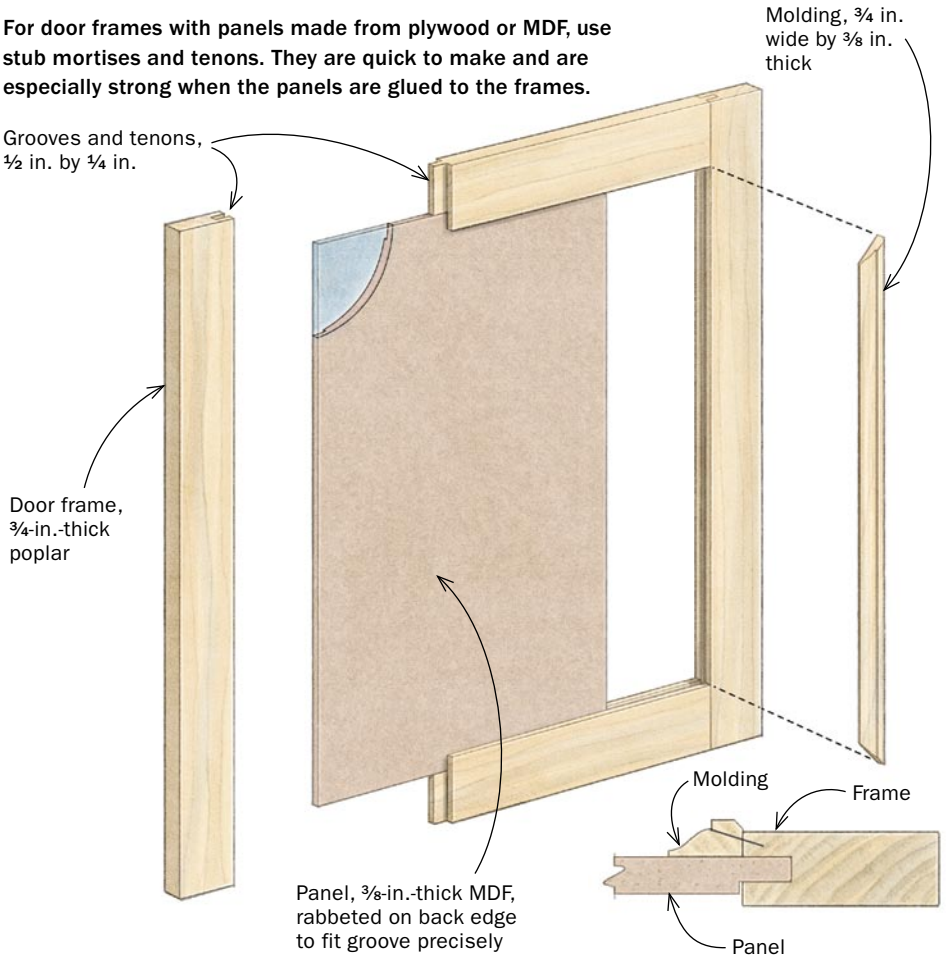
Rout the bead. *Attach a beading bit to a router mounted in a router table. Then, to bury the bit, adjust the fence so that it's flush with the bearing. Make the cut on both long edges of the stock.*

Cut off the bead. *Set the tablesaw fence to make a narrow rip cut, then cut away the bead from both edges of the stock.*

Attach the bead to the case. *Cut the beading to length so it fits inside the face frame, with each end of the beading mitered to 45°. You want the beading set back about 1/64 in. Attach with glue and pins.*

13. Use stub tenons for cabinet doors

For door frames with panels made from plywood or MDF, use stub mortises and tenons. They are quick to make and are especially strong when the panels are glued to the frames.

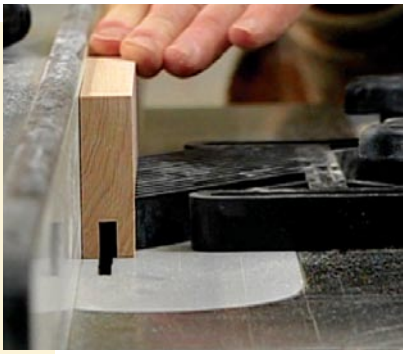


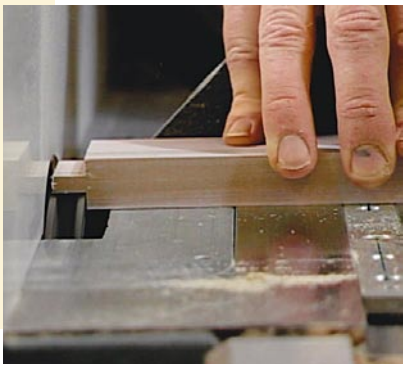
14. Apply molding to add interest

Rout the molding profile along both edges of a board, then use the tablesaw to rip the molding to width. Miter the corners to 45°, then use glue and pins to secure each piece.

15. Tablesaw speeds joinery

The tablesaw and rip fence team up to cut a groove in the stiles and rails for the rail tenons and the door panel (top). To ensure stock is centered, set the dado head to make a ¼-in.-wide cut. Make the cut, then flip the stock so the opposite face is against the fence and make a second pass. The dado cutter and miter gauge cut the tenons on each end of the rails (bottom).





16. Use the case bottom as a doorstop

Position the bottom of the case so it can double as a doorstop, with the lower face-frame rail set just below the front edge of the case bottom.

Before the cabinet is assembled, use a heat gun and roller to apply iron-on veneer to cover the exposed front edge of the case bottom. Cut the case bottom about 1/32 in. narrower than the top to allow for the iron-on veneer.

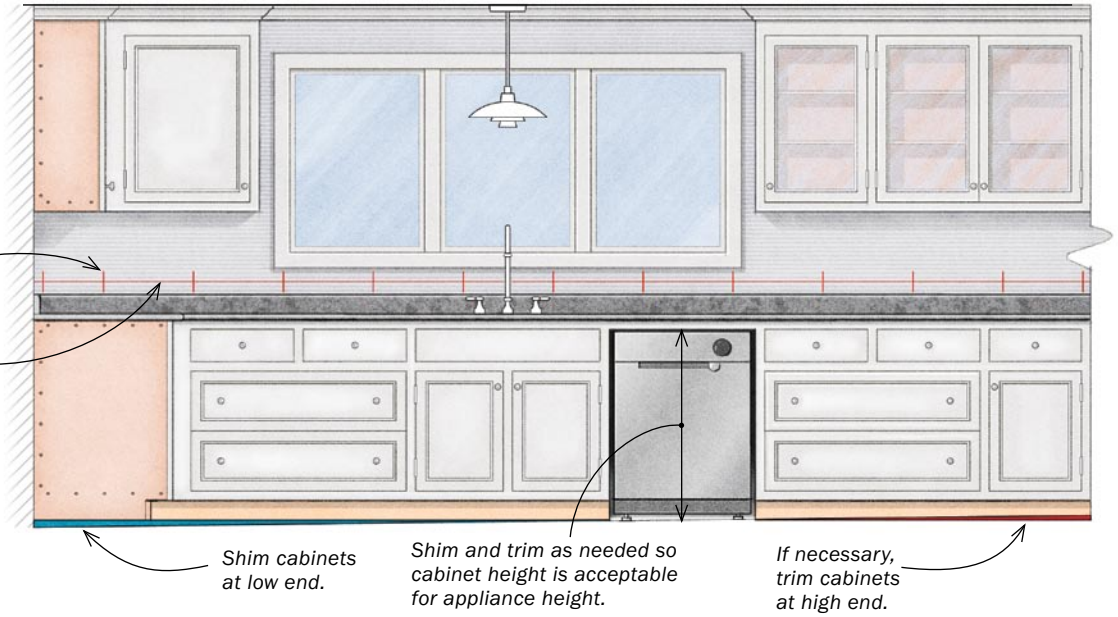
Photos: 2007 WGBH/Morash Associates Inc.; this page (second from bottom right): Michael Pekovich

Installation tips

When installing your cabinets, make sure they are securely anchored to the wall studs, especially the upper cabinets as they are often filled with heavy dishes. The end panels should have a gap-free fit against the back wall. And, of course, the cabinets must be level both end-to-end and front-to-back.

17. Reference lines are critical

Use a laser level (or a transit) to scribe a horizontal reference line on the walls. Then find the high and low points on the floor. Also mark stud locations on the wall.



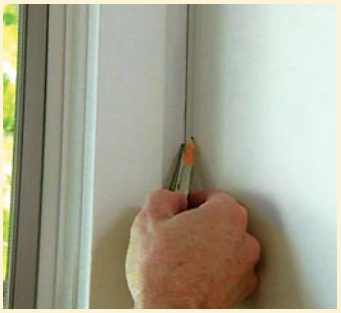
18. Shim to level the base cabinets

To ensure that the tops of the cabinets (before the countertop gets added) are at the correct height for the appliances, you might need to shim the bottom of the cabinets at the low end of the wall, and trim the bottom of the cabinets at the high end of the wall.

High and low points. *Use shims to raise the cabinets at the low ends of the kitchen. You also can trim the cases, for example, scribing a front-to-back taper with a compass, then cutting to the line with a circular saw.*

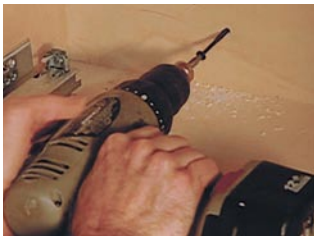
19. Scribe to eliminate gaps against walls

With the cabinet level, butt it against the back wall (and side wall when at a corner) and use a compass (below) to scribe the wall's profile along the back edge of the cabinet (or side edge of the face frame if at a corner). Using a circular saw, cut 1/16 in. outside the scribed line. Use a belt sander (bottom) to sand to the line, angling the sander to create a back-bevel for a better fit.



20. Make them all permanent

Before leveling the base cabinets, put them in place temporarily to mark stud locations so you can predrill through the backs. After leveling them, drive 3-in.-long screws through the backs into the wall studs (don't overtighten). Join adjacent cabinets with screws. Add a kickplate to the lower cabinet.



KICKPLATE DETAIL