Linenfold Carving

Planes and gouges shape folds

by Rick Bütz

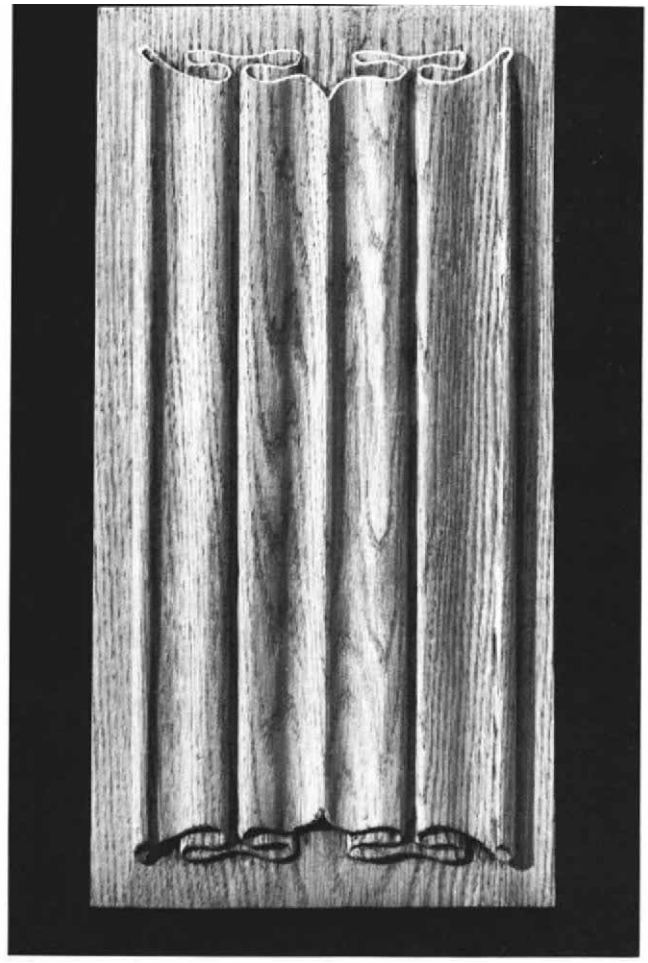
Linenfold carving creates in wood the effect of creases and undulating folds of cloth or parchment. The design seems to have originated with French and Dutch woodworkers around the year 1450, and was probably inspired by the shapes and patterns of draped altar cloths. Several surviving pieces show intricately carved borders reminiscent of the rich embroidery found on ecclesiastical appointments. During the late 15th century, linenfold was introduced into England, where it quickly caught on among the tradesman woodcarvers. The style became so popular that it is now the hallmark of Tudor-Gothic design.

Linenfold was usually carved on a rectangular panel, which was then fitted into a grooved framework. The design could easily be altered in length, and today can be seen as paneling in houses, public buildings and churches, including Westminster Abbey. Linenfold was also popular for paneled doors, chests, beds and other household furnishings of the 15th and 16th centuries. Although many of the early examples were realistic interpretations of cloth folds, the design eventually became quite stylized, and it is even found sideways at times, as if the idea of a hanging drapery had become quite forgotten. As tastes changed toward the end of the 16th century, linenfold carving was replaced by the elaborate floral themes of the early Renaissance.

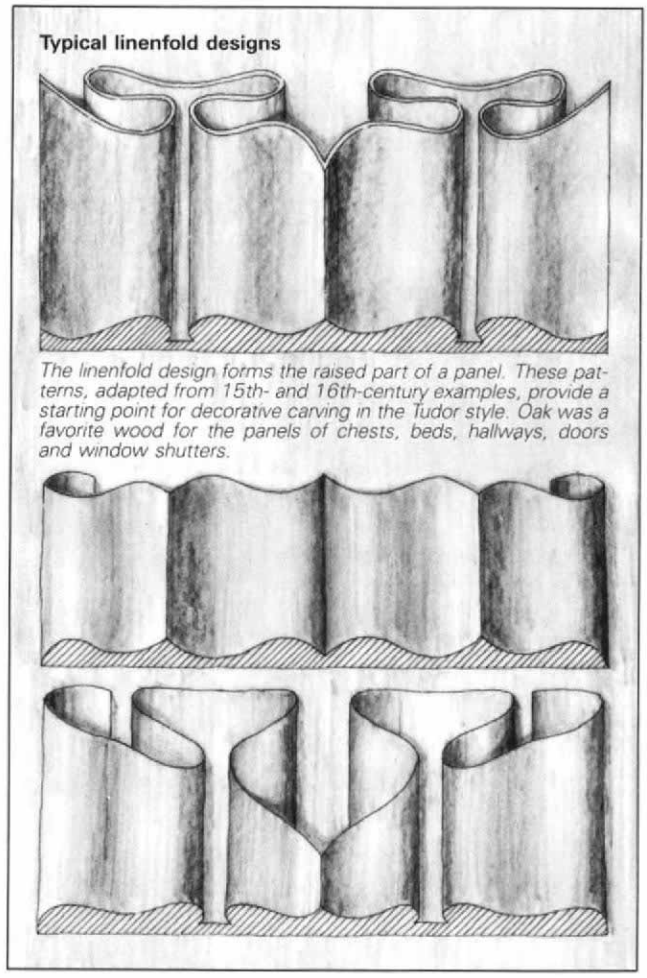
There are many traditional designs to choose from. I've included drawings of a few to give you an idea of the range. The old woodcarvers varied each panel slightly, achieving a vitality that let them cover an entire room or hallway with linenfold without it seeming monotonous or repetitious. This variety sets the original Gothic woodcarvings apart from later imitations. So don't be afraid to modify the design, but keep in mind that it will be difficult to visualize the end result. Make precise drawings: a full-scale cross section and a clearly defined sketch of the end folds, as shown at right.

The carving of linenfold is basically a two-step procedure. The long folds and undulations are planed out, then the ends are shaped with various carving tools. One aspect that makes carving a linenfold panel so enjoyable and interesting is the variety of tools that are used. While you could use routers and circular saws, it's just as quick and more satisfying to do it with traditional hand tools. For cutting down the background and shaping the contours of the long folds and creases, use a rabbet plane, a plow plane, one or two round planes, and a small block plane (photo **A**, top of facing page). For carving the end folds, you will need one or two fishtail gouges of medium sweep and a back-bent gouge. If you don't own all of these tools, you can modify the design to suit the ones you have.

Rick Bütz, 34, makes his living by carving wildlife in Blue Mountain Lake, N.Y. Photos by Ellen Bütz, except where noted.

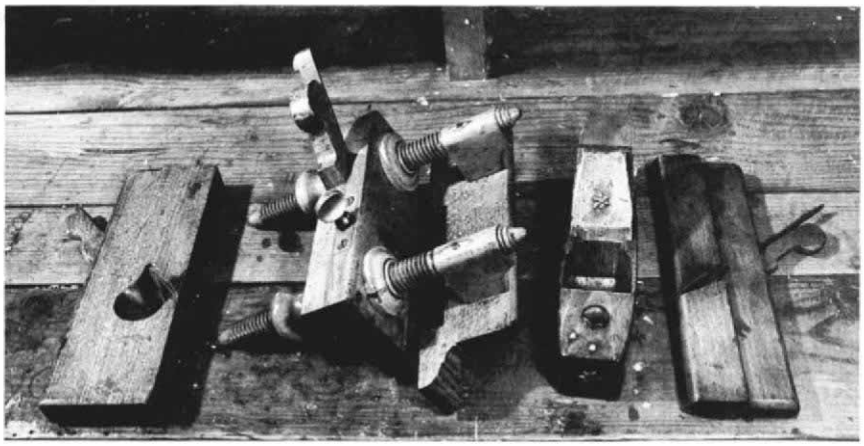


This linenfold panel, planed and carved in traditional oak, is ready to be let into a frame.



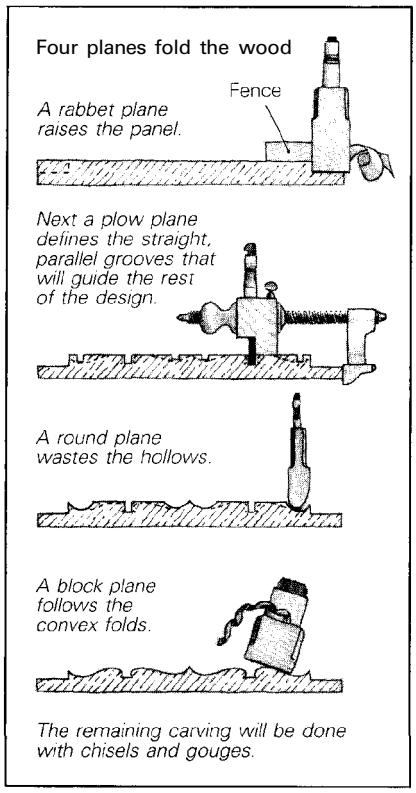
The linenfold design forms the raised part of a panel. These patterns, adapted from 15th- and 16th-century examples, provide a starting point for decorative carving in the Tudor style. Oak was a favorite wood for the panels of chests, beds, hallways, doors and window shutters.

A



Four planes put back to work: The rabbet plane, at the left, lowers the background, and the plow plane grooves the guidelines; then the block plane and the round plane shape the curves.

Begin the linenfold by marking out the border with a marking gauge. Be sure to allow some extra material for a tongue, to fit the panel into a door or a furniture carcase. Next cut down the background along the edges with a rabbet plane (below). The most accurate way to set up the rabbeting is to clamp a fence, a smooth 1-in. by 2-in. board along the face of the panel, to guide the plane and keep the edges straight. As a general rule, the background should not be taken down any more than one-half the thickness of your panel. If you exaggerate the vertical scale of the drawing too much and go for a deeper relief, the end folds will become fragile, which is a real problem in oak, the traditional Gothic wood.



When the background has been cut down and smoothed, mark out the ends of the panel by tracing a cross-section template from your plan. Make sure that your markings are symmetrical and that they line up on both ends of your board. I use a plow plane with a ⅛-in. iron to cut a series of grooves that exactly match the deepest parts of the cross section. The grooves will serve as a guide for hollowing out the undulations with a round plane, keeping the edges parallel and preventing the shaping from going too deep. This is important for a clean, crisp job.

Use a ¾-in. round plane, or something similar, and carefully hollow out the concave folds. The plane iron should be absolutely sharp and the sole of the plane should be waxed with either paraffin or a hard, cross-country ski wax. Ski waxes come in different colors to indicate their relative hardness and the kinds of snow they should be used on. I find that harder waxes, such as blue or green glider, make planing easy and keep the cuts true and clean.

Next smooth off the convex surfaces of the folds with a block plane, and then use a shallow carving gouge to eliminate any remaining ridges. A #5 sweep in a 12mm to 16mm width and a small flat chisel work quite well for this job. The rest of the shaping will be done with carving gouges and the lightest of finish-sanding.

Now make another tracing and template showing the shape and outlines of the outer end folds. Transfer this to the ends of the panel (photo **B**), and begin "setting in" with a mallet and gouges. "Setting in" means to drive the tool down vertically with a mallet (photo **C**). Then make a horizontal cut to meet the curves. The sweep of the gouges should correspond to the curves of the lines. For this panel, I used an 8mm #5 and a 4mm #7 to set in all of the lines. Don't drive gouges too deep—they can break. When you set in, stop about 1/16 in. short of the background depth. This is important because the outlines will eventually be undercut in order to give the final piece a feeling of depth and separation from the background. If you drive the gouge down too far at this stage, the cuts will show after you undercut, leaving the work rough.

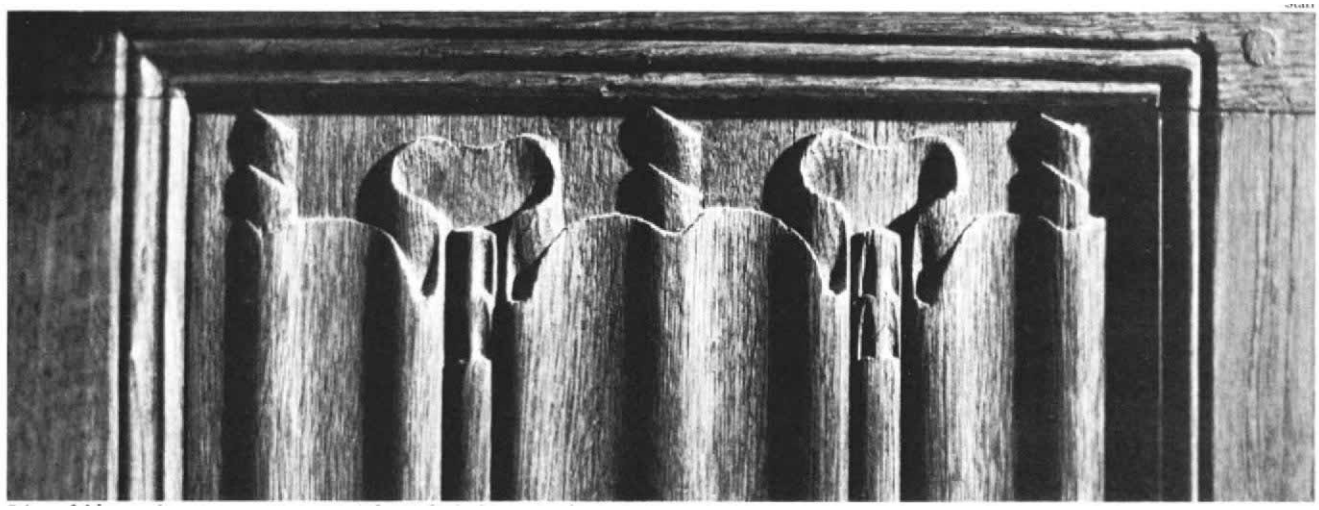
Using a 14mm #7 gouge, ease off the edge you have just set in. This is done by carefully carving a smooth bevel that extends from the inner fold line down to the outer fold line, leaving no

B

Make a template of the end folds and trace it on the work.

C

Set in by driving vertical cuts to within 1/16 in. of the background.



Linenfold paneling, an imitation of draped cloth in wood, evolved into one of the high points of Tudor design. This wall panel, from the Parnham House in Reaminster, England, is typical of much architectural woodwork of the 15th and 16th centuries.

D

Bevel between the lines with a gouge, leaving bottom edge of 'cloth.'

E

Outline the edges with a V-tool, cutting with the grain as much as possible.

less than 1/16 in. of that contoured line (photo **D**). To begin setting in the inner folds, sketch in the line of the folds, then outline these edges with a 6mm V-tool (photo **E**). To prevent splintering when working across the grain, start each cut from the outer edges of the fold and work toward the center.

Make your horizontal cuts in from the end with a 5mm #3 gouge to clear away the waste, and use an 8mm #5 back-bent gouge to even up the outline (photo **F**). Undercut them slightly. A back-bent gouge is perfect for finishing up linenfold, but it can feel awkward if you are not used to it—the action is the reverse of the more familiar spoon gouge's. A straight gouge can also be used for undercutting, but be careful—the angle of cut may split the wood.

Use the small #3 gouge to clear away any waste, and smooth out the surfaces of the end folds. Use the back-bent gouge to undercut the original set-in line, and then clear away any background material that was left earlier.

As a last step, here's one of woodcarving's fine points: Take a small carving chisel, or shallow gouge, and cut a small bevel along the entire edge of the end fold lines, to reflect light so that the edge will shine (photo **G**). If this line were left sharp, it would disappear in most light and spoil the illusion of cloth folds captured in wood. Finally, lightly touch up any rough spots with fine sandpaper. Just be careful not to smooth over or obscure any edges that should be left crisp, and try to leave the tool-mark facets prominent. Gothic woodcarvings, particularly linenfold, should be boldly simple. Those old craftsmen cut right to the line. □

F

Undercut the folds slightly with a back-bent gouge.

G

Bevel the edges to catch the light, further defining the carving.