



Project 13004EZ: Intarsia Racoons

Woodworking doesn't always have to mean building furniture or toys. This project is an example of intarsia, a craft form of woodworking that uses different types of woods, or different paint colors over wood, to make three-dimensional "flat" sculptures that are assembled on a backboard.

The process is actually quite simple. Working either from a pattern or freehand, a design is laid out on the wood. A band saw or scroll saw is then used to cut out the design, after which the individual pieces are shaped, painted, and then reassembled — something like the pieces of a puzzle — on the backboard. The process may seem like an art form, but once you have a pattern, it's just straightforward cutting, painting, and assembling.

The Knothole Gang is made from just three boards, with a few scraps of plywood used as shims to raise some of the raccoon's facial parts. The frame is a 3/4" thick by at least 9" wide by about 12" long slice of tree trunk, log, or branch, with the bark still on. Instead of being cut exactly across the grain, the cut is made at a slight angle, making a piece that's a little longer than it is wide. If you have a chainsaw, your woodpile might yield a multitude of slices for the dried and sanded basswood frame. You'll also need a 1" thick x 6-1/2" wide x 5-1/2" long piece of basswood for the raccoon faces, and a 3/4" thick by 8" wide x 11" long piece of rough-sawn cedar for the backboard. The 12mm brown eyes are available at craft stores (see Materials List).

Intarsia Raccoons Materials List

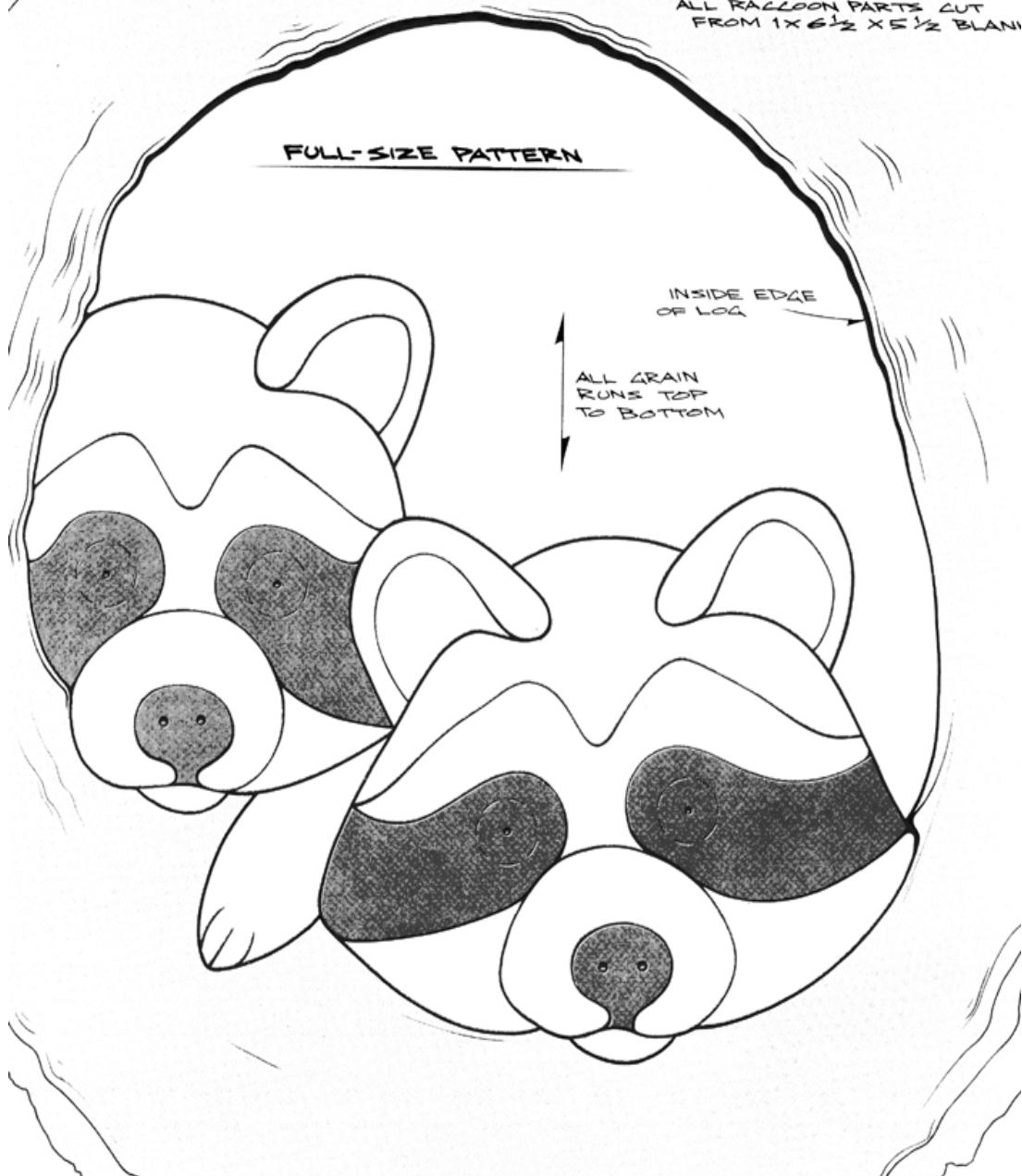
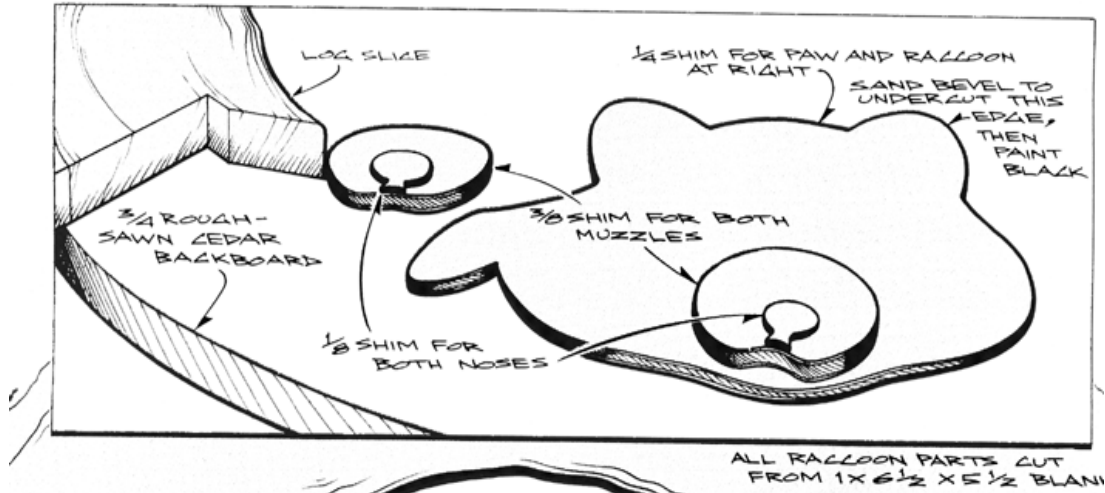
Description	Size	No. Req'd
Cross-sectional log slice frame	3/4" x 9" x 12"	1
Basswood raccoon faces	1" x 6-1/2" x 5-1/2" (yields both faces)	1
Rough-sawn cedar backboard	3/4" x 8" x 11" backboard	1
Plywood scrap shims	1/8" x 1/4" x 3/8"	See instructions.
Glass eyes	12 mm	2 pairs
Sawtooth hander		1
Screws	#6 x 1-1/4" long	4
Walnut acrylic paint for forehead, cheek, chin and paw		1 oz.
Black acrylic paint for eye surround, nose, log, and backboard		1 oz.
Cream acrylic paint for inner ear, eyebrow, and muzzle		1 oz.
Burnt umber acrylic paint for og and backing board		1 oz.
Clear matte finish		as needed

Intarsia Raccoons Step-by-Step Instructions

Step 1: Prepare the Log Section, Backboard, and Shims

1. Gather together all the materials.
2. Transfer the opening in the log (the cutaway section out of which the raccoons are peering) from the full-size pattern to your log section.
3. Drill a starter hole for the saw blade.
4. Use the scroll saw to cut the profile.
5. Lay the log section on a piece of paper.
6. Trace all around the outside profile.
7. Stay about 1/2" to the inside of the scribed line and cut out the paper.
8. Use this paper template to scribe the profile onto the back board.
9. Use the scroll saw to cut the shape.
10. Take four screws and screw the backboard (rough-sawn side facing forward) to the back of the log section.
11. Trace and cut the scrap plywood to make the shims.
12. Trace the outside profile of the right side raccoon (including the paw of the left side raccoon) onto 1/4" stock.
13. Trace both raccoon's muzzles onto 3/8" stock.
14. Trace the nose profiles of both raccoons onto 1/8" stock.
15. Sand the upper edge of the 1/4" shim to establish a slight undercut.
16. Paint this edge black.
17. Allow the paint to dry.
18. Glue the 1/4" shim in position on the backboard.

Intarsia Racoons Complete Schematic



Step 2: Cut the Faces

1. Trace the raccoon profiles onto the 1" thick basswood.
2. Drill the 12mm diameter by 1/8" deep eye holes.
3. Drill the pair of 1/8" diameter by 1/8" deep holes that serve as the nostrils on each nose.
4. Use the scroll saw to cut out the raccoon faces.
5. Glue the 1/8" thick shims to the back of the noses.
6. Glue the 3/8" thick shims to the back of the muzzles.

Step 3: Shape and Sand

1. Test assemble the raccoon faces in position on the backboard and make sure that everything is set at the proper final level.
2. Take a sharp pencil and, using the front of the log cutout as a guide, scribe a line across the facial parts that protrude higher than the surface of the log. **NOTE: This line serves as a guide showing you what to what point you should shape and round the facial parts.**
3. Equip the drill press with a 2-1/2" x 3" sanding drum.
4. Place 80-grit sandpaper on the sanding drum.
5. Set the drill press speed to 2300 rpm.
6. Equip the drill press with a 1/2" diameter drum to shape the curve on the insides of the ears.
7. Shape the top of the head of the raccoon on the left.
8. Mark the terminus point of the shaping so you know where to start rounding the higher pieces.
9. Shape the top of the head of the raccoon on the left.
10. Add the ears.
11. Add the muzzle and nose.
12. Shape the raised sections (mainly the muzzles) in a gentle curve down to meet the height of the surrounding face.
13. Put the ears in position where they meet next to the already shaped head
14. Mark the depth of the curve from the head to the ears.
15. Study the photo closely as you proceed, and then compare regularly with your own work.
16. Hand sand to remove grit marks left by the drum sander.
17. Use a knife or a woodburning pen to mark the toes on the raccoon's paw.

Step 4: Paint

1. Thin the acrylic paints (**EXCEPT THE BLACK FOR THE NOSES**) with just enough water to allow the wood grain to show through.
2. Keep a jar of water handy to keep the brush wet.
3. Get a brush that's at least 1/2" wide to apply the paint quickly.
4. Paint each part individually according to its assigned color in the materials list.
5. Allow the paint to dry.
6. Sand the face of the log to produce the light grey look contrasting with the darker cutout area.
7. Spray on server light coats of a clear matte finish.
8. Apply a high-gloss clear finish on the noses to give them their shine.
9. Allow the pieces to dry.

Step 5: Add the Final Details

1. Use any wood glue to glue the pieces in place, adjusting the spaces between the individual pieces so any gaps caused by the saw kerfs are even.
2. Use a little epoxy to glue the glass eyes in place.
3. Attach a sawtooth hanger to the backboard to hang the project.

These plans were originally published in Volume 16, Issue 3 of *The Woodworker's Journal* (May/June, 1992, pages 54-57).