

White-crowned Sparrow Pattern and Carving Notes

By Steve Field

I teach woodcarving, and have developed this pattern for my class. You'll notice that the pattern is slightly oversized. I've made it this way because my beginning students tend to remove too much wood. Therefore the dimensions shown should be used when the actual carving is being done. As for the wood choice, I recommend tupelo rather than basswood because you do not have to deal with the "fuzzies" that occur when you use basswood.

CUTTING THE PATTERN

When you cut out the pattern, you will notice there is a shaded area on each side of the head. Make the cutout a little larger in the head area, indicated by this shaded area, and the beak a couple of millimeters longer. When cutting out the profile, do not cut out the inside of the beak. Instead, follow the dashed line in the pattern from the top of the beak tip to the bottom of the beak tip. I recommend this because the inside of the beak can be done at a later time; if the inside of the beak is cut out at this stage, the beak may break off.

After the top and side views are cut out, transfer a "high spot line," indicated by the dotted line, onto the cutout. This line should never be removed until you are through with the rough out stage and are ready to put in the major feather groups and begin the burning or stoning phase. If much of this high spot line is removed you are changing the shape of the bird.

There are six cross sections of the bird shown that should be cut out. Make the cutouts 1 millimeter larger than shown. This is because I find students generally remove more of the wood than the cross sections indicate, resulting in a misshaped bird. The profile of the head cutout, from cross section 2 upward, which I'll call cross section 7, should be cut in two parts; the first one (7a) is the head and beak full profile; the second is just the top portion of just the head and beak from the beak tip to the back of the head where it joins the body (7b). Profile 7 should not be cut oversized. The cutouts have B and F on some of them. B is back and F is the front of the bird. R and L are the right and left of the bird.

I recommend that you work on the head of the bird first because this is the most difficult part of the bird. The head is also the most critical part because most people focus on the head. If the head is done poorly you can start over. If you make a mistake on the rest of the bird probably few people will notice.

To begin the head, remove the excess wood so that cross section 2 fits. Remember to not remove the high spot line on the back of the head. Use cross section 7b so the top head and beak profile fit. Cut off the tip of the beak so it is not too long (9 millimeters from front edge of nostril hairs to beak tip). Then proceed to remove the wood at the top of the head crown so cross section 1 fits; again do not remove wood at the back of the head to accomplish this. Then proceed to remove wood so cross section 4 fits. From this point on you can proceed to remove the rest of the excess wood making sure cross sections 3, 5 and 6 fit. When you are satisfied with the shape of the bird you can then cut new cross sections to the exact size and finish the reshaping the bird. Shaping the rest of the bird is relatively easy.

CREATING TEXTURE

If you've never tried to make realistic feathers, here are a few general comments you'll find useful. The wing and tail barbules should be burned with a fine-tipped woodburner. Strive for about 60 lines to the inch for a realistic effect. You can either stone or burn the feather barbules on the rest of the bird, each has its own advantages. With stoning it is easier to get more curvature to the barbules than with burning, but you can get the barbules closer with burning. If you're stoning, use a very fine white stone or one of the new serration sticks available from Curt's Waterfowl Corner in Bourg, Louisiana (800-523-8474). These are flexible sticks with ceramic and glass fibers bonded with resin. The stick has a 3/32 inch-diameter shaft and is about two inches long. The available grits are 180, 400 and 1,000. I prefer the red 1000 grit.

To begin making feathers on the white-crowned sparrow, first create slight depressions defining major feather groups indicated by the hatched lines. Draw in individual feathers within each of the feather groups. Using a conical stone outline only parts of each feather. When finished you do not want to see each individual feather but the feathers should flow from one into the other.

Now you can remove the excess of the inside of the beak. A fine jeweler's saw blade works well here. Finish the beak using small diamonds and stones. Remember the lower mandible fits into the upper mandible. If you have access to a sparrow study skin, available at most university zoology departments, study the beak carefully and transfer that knowledge to the beak of the bird you are carving. Finally you can finish the burning and stoning, if you prefer.

COMPLETING THE SPARROW

The eye is a 5 millimeter brown eye and is the last thing I do to finish the bird. Set the eye using Kulis Karvit, then create the eyelid by mixing equal parts of blue/yellow ribbon epoxy. When a uniform green color is achieved, roll a small piece between two pieces of masonite board until a uniform thickness is achieved—about one-third millimeter thick and about an inch long. Then wrap it around the eye and blend it to the head with Kulis Karvit.

Prior to painting, brush the bird parallel to the feather barbules with a soft toothbrush to remove residue. If using acrylics to paint the bird, seal it first with three coats of Krylon 1311. If using oils, first apply one coat of a one-to-one mix of lacquer and thinner. When dry, again brush the bird with a soft toothbrush to remove residue.

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Beak tip to: (measurements in mm)	
Tail tip	151
Front edge nostrils	9
Back of beak top	12
Back of beak lower	12
Eye center	18.5
Back of head	45

Wing tip to:	
Wrist	77
Greater coverts fold	41
Lesser coverts front crease	64
Secondaries	14
Top of greater coverts	42
Alula	50

Tail tip to:	
Wing tip	51
Lower tail coverts	34
Upper tail coverts	43
Anus	74

Head crown at:	
Eye center	16.5
Widest point	21
Head width at front edge eye	14

Beak width at base	9.5
Beak width at nostril	7
Beak length top	11

Feather numbers (showing):	
Tail	8
Wing primaries	8
Wing secondaries	8
Greater coverts	8
Lesser coverts	5

Foot lengths:	
Tarsus	24
Center toe	10 (nail 7)
Side toes	10 (nail 5)
Hind toe	9 (nail 7)

Note: Pattern is slightly oversized. Above measurements should be used.

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